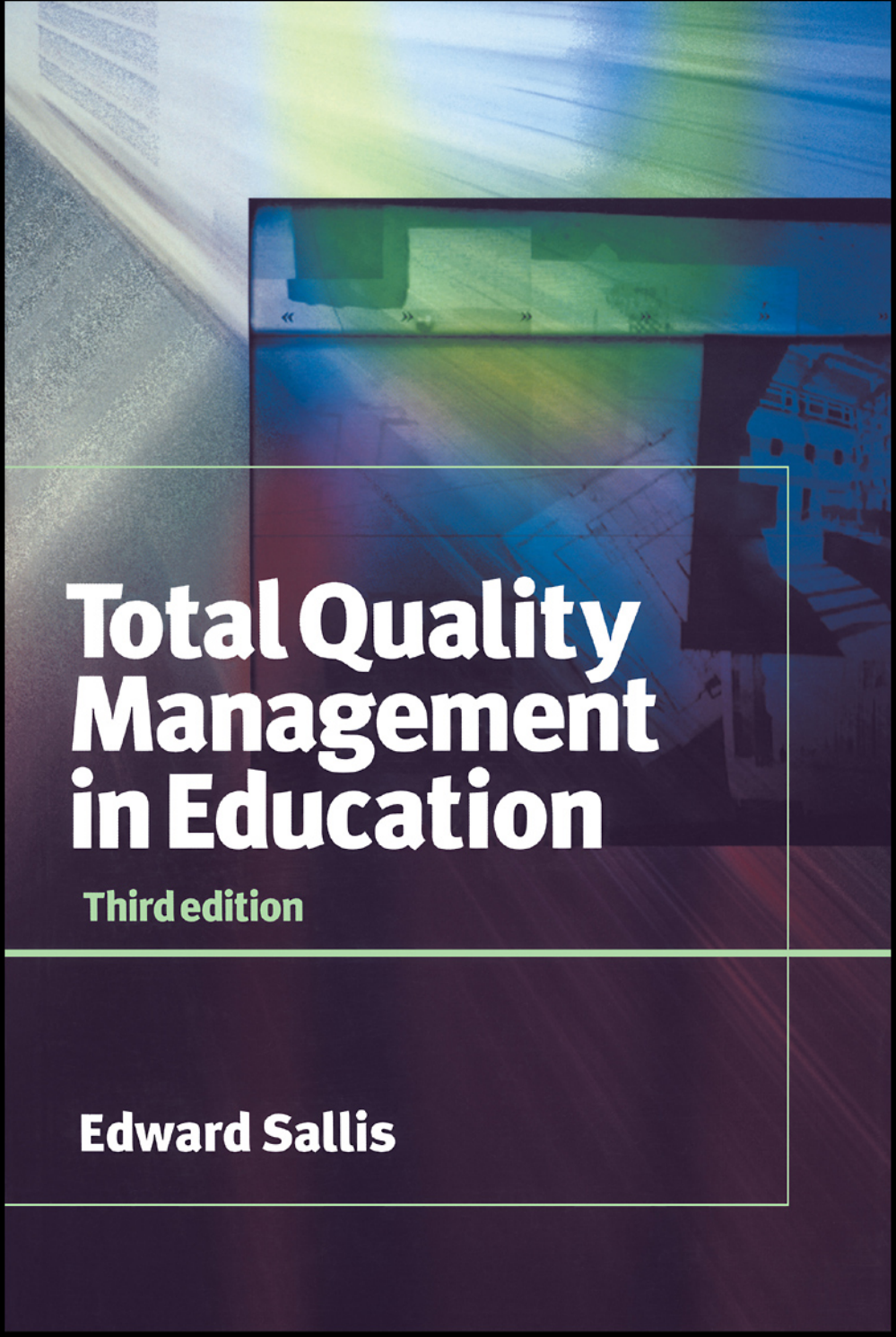

Total Quality Management in Education

Third edition

Edward Sallis

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Edward Sallis

For Kate

First published in 1993

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His many publications include *The Machinery of Government* (1982); *People in Organizations* (1989), which he wrote with his wife Kate Sallis; *Total Quality Management* (1992), co-authored with Dr Peter Hingley; and *Knowledge Management in Education* (2001), co-authored with Dr Gary Jones and also published by Kogan Page. *Total Quality Management in Education* was first published in 1993, with a second edition appearing in 1996. It has since been translated into Chinese.

Edward writes regularly for the Channel Islands business magazine *Business Brief* as well as for other educational journals, and he has taken part in many national and international educational initiatives in the fields of quality assurance, organizational development, lifelong learning and the knowledge economy. He is the Director of the British-Irish Council's 'Bridging the Digital Divide' project and a member of the Association of Colleges' National Policy Forum.

Preface

When the first edition of my book appeared in 1993, quality was a new subject. My prefaces to the first and second editions of this book were aimed at persuading sceptical educationalists to embrace total quality management. I wanted to extol the virtues of TQM and to introduce the world of education to the then somewhat alien concept of quality assurance.

In the new millennium there is less need to make this call to arms. Quality is nowadays, quite rightly, a high priority and has become almost the very stuff of the education debate. But while the novelty may have worn off, the need to understand how to assure quality in education remains. It is an interesting question whether quality in education is really understood.

So while many of us may feel that we are now all part of the quality movement, there is still a huge gap between the rhetoric and real understanding. The philosophies of the pioneers of the quality movement, Deming, Juran and Crosby, have not been translated very accurately into the practice of education. Do we really believe that quality is about improving students' learning, empowering teachers, supporting teamwork, providing leadership or that in pursuit of quality we are driving out fear fear in our institutions?

Too often today quality has become synonymous with the latest government stricture on standards, examination success, school performance, league tables or part of the latest party political pronouncements on education before an election. I do not say this with any sense of cynicism. Rather I sense it is the way of the world. Once the message of quality had become popularized, there was always a danger of it becoming vulgarized.

One wonders what W Edward Deming, the famous exponent of TQM who introduced the quality message to the Japanese after World War II, might have made of some of the initiatives that are today heralded in

the name of quality improvement. What might he have made of the somewhat ruthless regimes of school inspections that countries like the United Kingdom have introduced as their response to the need to improve quality? The third of Deming's famous 14 points reads 'cease dependence on mass inspection to achieve quality'. Thiswill receive hollow laughter from millions of teachers who nowadays await the inspector's call. This is not to decry inspection *per se*. Inspection has a place as a means of verifying self-assessment and as a means of quality control, but it is not the same as quality improvement, which is a much greater task and cannot be externally imposed. Institutions cannot hand over the process of improving quality to an external inspector.

This new edition has been undertaken because I still believe that total quality management has a lot to teach education. TQM has taken a battering as the Japanese economy has shown its frailties. But despite the economic problems of the Japanese, who first put TQM into action, it has considerable resilience and much to teach us.

TQM as a management model, with its emphasis on leadership, strategy, teamwork, rigorous analysis and self-assessment, has a universal message. And it has always been a philosophy for the long haul rather than a short-term fix. It is now required more than ever in our world of continuous change.

The knowledge revolution has brought about rapid advances in technology. It has changed the way we work and think and is changing learning. To cope with the information age every person requires a high standard of education. High educational attainments are the right of each and every child throughout the world. To achieve this every boy and girl needs to have a quality education. This may seem like a pipe dream in many parts of the world, or even in the inner city schools of many western countries, but this is just the issue where TQM has its relevance. TQM in education has as its message the idea that every child has worth and demands the best possible chance in life. It is an aspiration as relevant in Calcutta or Nairobi as in London, New York or Beijing. It may sound utopian, but it is after all to dreams like these that education should aspire, and it was for or dreams like these that the pioneers of TQM, albeit in a different context, developed their ideas.

Since the publication of the first edition *Total Quality Management in Education* has travelled. It has been sold widely in North America, Africa and Europe and has been translated into Portuguese and Chinese. This edition has brought it up to date and now includes material on the debates on benchmarking, measurement and value added, knowledge management, quality systems and self-assessment. It now has a sister

publication in *Knowledge Management in Education,* which I co-authored with Dr Gary Jones. *Total Quality Management in Education* will in all certainty go into further editions as the quality movement in education continues to develop throughout the world.

1
Basics

'Quality is about passion and pride.'
Tom Peters and Nancy Austin, A Passion for Excellence

Quality is at the top of most agendas and improving quality is probably the most important task facing any institution. However, despite its importance, many people find quality an enigmatic concept. It is perplexing to define and often difficult to measure. One person's idea of quality often conflicts with another and, as we are all too aware, no two experts ever come to the same conclusion when discussing what makes an excellent school, college or university.

The message of quality

We all know quality when we experience it, but describing and explaining it is a more difficult task. In our everyday life we usually take quality for granted, especially when it is regularly provided. Yet we are all too acutely aware when it is lacking. We often only recognize the importance of quality when we experience the frustration and time wasting associated with its absence. Of one thing we can be certain: quality is what makes the difference between things being excellent or run-of-the-mill. Increasingly, quality makes the difference between success and failure.

The best organizations, whether public or private, understand quality and know its secret. Seeking the source of quality is an important quest. Education is also recognizing the need to pursue it, and to deliver it to pupils and students. There are plenty of candidates for the source of quality in education. Amongst these are:

- outstanding teachers;

- high moral values;
- excellent examination results;
- the support of parents, business and the local community;
- plentiful resources;
- the application of the latest technology;
- strong and purposeful leadership;
- the care and concern for pupils and students;
- a well-balanced and challenging curriculum.

It is instructive to look to the business world for an insight into quality. IBM's definition puts it simply: 'quality equals customer satisfaction' (Unterberger, 1991). Alex Trotman, an Executive Vice-President of the Ford Motor Company, has delivered the same message: 'we know these days, in these tough times, that we have to satisfy our customers completely'. It is not quite as simple as 'listen and respond to your customers and all the other good things will follow', but it is a serious start. Organizations who take quality seriously know that much of the secret of quality stems from listening to and responding sympathetically to the needs and wants of their customers and clients. Quality involves doing many other things well, but unless an institution puts its customers first the preconditions for developing quality will not exist.

Why quality?

Quality is an idea whose time has come. It is on everyone's lips. In the UK we have the Citizen's Charter, the Business Excellence Model and the Investors in People standard, while the United States has the Malcolm Baldrige Award and the Japanese have the Deming Prize. The European Foundation for Quality Management has developed the successful European Quality Award, while internationally there is the important International Standard ISO9000 series. These are just some of the more influential quality awards and standards that have been introduced in recent years to promote quality and excellence in a wide range of industries and services. This new consciousness of quality has now reached education; educational institutions are being required to develop their own approaches to quality, and need to demonstrate publicly that they too can deliver a consistent quality service.

No longer are quality, quality assurance, total quality and TQM new initiatives or another set of fads designed to add to the workload of already over-worked teachers and under-funded institutions. While initiative fatigue has been a symptom of a hard-pressed education

system for the past decade, quality improvement should not be seen in this light, but rather as a set of tools to help teachers and educational managers.

Total Quality Management is both a philosophy and a methodology. It can assist institutions to manage change and to set their own agendas for dealing with the plethora of new external pressures. Considerable claims are made for TQM. There are those in education who believe that TQM properly applied to it can complete a similar transformation. However, TQM does not and will not bring results overnight; neither is it a panacea for all the problems that beset education. Rather it is an important set of tools that can be employed in the management of educational institutions.

The four quality imperatives

When I first started researching quality I asked the question 'why should an educational establishment want to be involved in quality assurance activities?' My research has led me to the conclusion that educational institutions are pursuing quality improvement for a number of important reasons. Some are linked with professional responsibility, while others result from the competition inherent in educational marketplaces or from the need to demonstrate accountability.

I have called the results of this research the *four quality imperatives.* In the commercial world it is the survival imperative that often drives quality improvement, but the complexity of education and the importance of values in education makes the motives for taking a quality stance more complicated and diverse. The four imperatives reflect the complex environment in which educational institutions operate. They are the drivers and motivating forces that challenge any institution to take a proactive stance on quality.

The moral imperative

The customers and clients of the education service (students, parents and the community) deserve the best possible quality of education. This is the moral high ground in education and one of the few areas of educational discussion where there is little dissent. It is the duty of educational professionals and administrators to have an overriding concern to provide the very best possible educational opportunities. As John West-Burnham has put it, 'it is difficult to conceptualize a

situation where anything less than total quality is perceived as being appropriate or acceptable for the education of children'.

The professional imperative

Closely linked to the moral imperative is the professional imperative. Professionalism implies a commitment to the needs of students and an obligation to meet their needs by employing the most appropriate pedagogic practices. Educators have a professional duty to improve the quality of education and this, of course, places a considerable burden on teachers and administrators to ensure that both classroom practice and the management of the institution are operating to the highest possible standards.

The competitive imperative

Competition is a reality in the world of education. Falling enrolments can lead to staff redundancies and ultimately the viability of the institution can be under threat. Educationalists can meet the challenge of competition by working to improve the quality of their service and of their curriculum delivery mechanisms. The importance of TQM to survival is that it is a customer-driven process, focusing on the needs of clients and providing mechanisms to respond to their needs and wants. Competition requires strategies that clearly differentiate institutions from their competitors. Quality may sometimes be the only differentiating erentiating factor for an institution. Focusing on the needs of the customer, which is at the heart of quality, is one of the most effective means of facing the competition and surviving.

The accountability imperative

Schools and colleges are part of their communities and as such they must meet the political demands for education to be more accountable and publicly demonstrate the high standards. TQM supports the accountability imperative by promoting objective and measurable outcomes of the educational process and provides mechanisms for quality improvement. Quality improvement becomes increasingly important as institutions achieve greater control over their own affairs. Greater freedom has to be matched by greater accountability. Institutions have to demonstrate that they are able to deliver what is required of them.

Failure to meet even one of these imperatives can jeopardize institutional well-being and survival. If institutions fail to provide the best services they risk losing students who will opt for one of their competitors. By regarding these *drivers* as anything less than imperatives we risk the integrity of our profession profession and the future of our institutions. We are in an era where parents and politicians are asking tough and uncompromising questions. For education as for industry, quality improvement is no longer an option, it is a necessity.

The origins of the quality movement

To investigate how the quality movement started, we need to understand its origins in industry. It is from industry that the language, concepts and the methodology of TQM are derived.

There has always been a need to ensure that products conform to their specification and give customer satisfaction and value for money. Achieving consistent quality allows consumers to have confidence in a product and its producers. The marks of gold- and silversmiths are evidence of this long-standing concern.

Quality assurance became an issue with the advent of industrialization. Prior to this craftsmen set and maintained their own standards, on which their reputations and livelihoods depended. They established guilds that regulated quality and developed apprenticeship programmes that ensured that there was proper training and regulation in the craft. The advent of mass-production changed the emphasis completely. No longer were individuals responsible for making whole products. Instead the manufacturing process broke down work into narrow and repetitive tasks. Importantly for our discussion, it took away from the worker the possibility of self-checking quality.

One essential feature of a craft, the responsibility of the worker for the quality of the product, was lost when goods were mass-produced. New production methods, associated with the scientific approach to management and the name of F W Taylor, at the turn of the twentieth century, reduced many in the workforce to human components in the process of manufacture. A strict division of labour developed from it and necessitated the expansion of a system of detailed inspection known as *quality control*

Quality control and inspection are processes that ensure that only products that meet a pre-determined specification leave the factory gate. However, quality control is an after-the-event process. It is divorced from the people who produce the product. Inspection and quality

control are designed to detect defective products. They are necessary processes under mass production, but they are often wasteful and expensive, involving considerable amounts of scrap and reworking.

Quality control and inspection in the past 20 years have increasingly been seen as uneconomic and wasteful, as they do not assure that the workforce care about quality. Many companies are replacing or augmenting them with methods of *quality assurance* and *quality improvement* that seek to build quality into the production process by returning to workers their responsibility for quality.

Notions of quality improvement and quality assurance began to emerge after the Second World War. However, in Britain and the United States they only began to attract attention on a large scale in the 1980s as companies started to ask questions about why the Japanese were at the time capturing larger and larger shares of world markets in a wide range of manufactured products. Questions were asked about their success, and whether it is bound up with their national culture and their novel quality management techniques. To find the origin of this new quality movement we need to start the search in the United States in the late 1920s.

The contributions of Deming, Shewhart and Juran

Quality assurance and total quality came late to the West, although the ideas were originally developed in the 1930s and 1940s in the United States by, among others, W Edwards Deming. Deming was an American statistician with a PhD in physics. He was born in 1900 and died in 1993. His influence as a management theorist has only been of comparatively recent origin in the West, although the Japanese have been calling on his talents since 1950. He is probably the person who has done most to influence the quality movement.

Deming begun formulating his ideas in the 1930s while working on methods of removing variability and waste from industrial processes. He started work at Western Electric's legendary Hawthorne plant in Chicago, where Joseph Juran, another pioneering quality theorist and the other main US contributor to the Japanese quality revolution, was also employed. The Hawthorne plant at the time employed over 40,000 people manufacturing telephone equipment. It was made famous by Elton Mayo and his colleagues from Harvard University, who between 1927 and 1932 carried out their famous series of experiments on the causes of productivity changes. It was whilst there that Mayo and his team discovered the famous *Hawthorne effect.* They demonstrated that

the factors that contributed most to increased productivity were not changes in the physical conditions at work but the style of leadership and group cohesiveness. In so doing they discovered the importance to industrial output and productivity of social psychology, group norms and values, leadership and the informal organization structures.

After working at Western Electric, Deming moved to the US Department of Agriculture. Whilst there he was introduced to a person who would influence his thinking and introduce him to a number of ideas that were crucial for the development of the quality movement. Walter Shewhart was a statistician who worked at the Bell Laboratories in New York. He had developed techniques to bring industrial processes into what he called *statistical control.* These were a series of techniques for removing the sources of variability from industrial processes, so enabling them to be made more predictable and controllable. Shewhart's aim was to use statistical control to eliminate waste and delay. One of Shewhart's lasting contributions, which was developed by Deming, was his 'plan, do, check, act' (PDCA) cycle that offered the first method for managing continuous quality improvement.

Deming's initial contribution was to develop and advance Shewhart's methods. The statistical methods of Shewhart and Deming are now known as *Statistical Process Control* (SPC). Taken together, the combined insights of the human relations movement associated with Mayo and his colleagues and SPC are the theoretical underpinnings of TQM.

The quality movement had its first success following World War II, but not in the United States which had pioneered many of the techniques. It was in war-ravaged Japan that the quality movement emerged. Deming first visited Japan in the late 1940s to work on their post-war census. Impressed by his work, the Japanese Union of Engineers and Scientists invited him to return in 1950 to lecture to leading Japanese industrialists on the application of Statistical Process Control. The Japanese were concerned to reconstruct their war-torn industry. US bombing had largely destroyed Japanese industry, and what was left mainly produced poor-quality imitations of other nations' products. The Japanese wanted to learn the new industrial techniques, particularly the quality control lessons, from other industrialized nations.

Deming gave his Japanese audiences a simple answer to their predicament. He told them not to start with quality control. Instead he told them to find out what their customers wanted. He suggested to his audiences that they design both their methods of production and their

products to the highest standards to meet customer expectations. He believed that such an approach would enable them to take the lead. Deming believed that his approach, if thoroughly carried out, would enable the average company to establish itself as a market leader within about five years.

The Japanese put into practice the ideas of Deming, Joseph Juran and other US quality experts who visited Japan at the time. The quality movement started in manufacturing manufacturing and was followed followed by service industries and later by banking and finance. The Japanese developed the ideas of Juran and Deming into what they call Total Quality Control (TQC), and used it to capture and create a lion's share of world markets in automobiles, electronics and consumer durables in the 1970s and '80s. Much of this market dominance was the result of the overriding concern for or quality. Their most famous national writer on quality, Kauro Ishikawa, described the Japanese approach to TQC as 'a thought revolution in management'.

The growth of interest in quality

In their native United States the ideas of Deming and Juran were largely ignored for many years. In the 1950s and '60s US business could sell everything they made in a world hungry for manufactured goods. The emphasis of US and most Western manufacturing industry was on maximizing output and profit. In the sellers' market that existed for or their goods, quality had a low priority. It was only in the late 1970s when many of their companies had lost both markets and market share to the Japanese that a number of major US companies started to take seriously the quality message. They started asking why it was that consumers preferred Japanese products.

In the United States, the turning point is often said to have been a nationwide NBC documentary in 1980 called *If Japan Can, Why Can't We*. The programme highlighted the dominance of Japanese industry in many US markets. The latter part of the programme featured W Edwards Deming and his contribution to Japanese economic success. Since then the message of Deming and Joseph Juran, together with other quality experts, including Philip B Crosby and Armand V Feigenbaum, has caught the imagination of business both in the United States and in Western Europe, although the reality is that only a minority of companies are still seriously implementing TQM. Nevertheless, quality has been put firmly on many agendas, although there is a long way to go

pre-1900	Quality as an integral element of craftsmanship
1900–1920	Quality control by foremen
1920–1940	Inspection-based quality control
1940–1960	Statistical process control
1960–1980	Quality assurance/total quality control (the quality department)
1980–1990	Total quality management
1990–2000	TQM, the culture of continuous improvement
2000–present	Organization-wide quality management

Figure 1.1 *The chronology of quality development*

before TQM becomes the norm as the benchmark for best management practice.

The quest for the answer to Japanese competition was highlighted in one of the most influential of management texts of the 1980s. Peters and Waterman's *In Search of Excellence* was published in 1982. In it they anal ysed the essential features of *the excellent company,* based on the best practice then existing in the United States. Their research showed that companies that had excellent relationships with their customers were often the most competitive and profitable. Excellence, they demonstrated, went hand in hand with simple, but crucial notions, of being close to the customer and an obsession with quality. They found that excellent companies had simple and non-bureaucratic structures that were based on active and enthusiastic teams that were led by visionary managers who had hands-on management styles. These features can be exhibited by any organization whatever its national and cultural origins, but they are ones that many Japanese companies have enthusiastically embraced as part of their TQC cultures.

The message of Peters and Waterman was that managers had to put aside short-term preoccupations and take a longer-term view. To stay ahead of the competition requires organizations to seek out their customers' requirements and then to be single-minded in meeting and exceeding them. It was generally recognized that Japan's place as a leading industrial power has been based to a considerable extent on taking to heart the quality message. They have long planning cycles and put the emphasis on designing quality into their products and into ensuring that attention is paid to their employee attitudes and relationships.

Much of the gulf between Japanese business methods during that period and those of Western industry had been cultural. The major difference was in the culture of their companies and their attitude to quality. All the major theorists, Deming, Juran, Crosby and Peters, have

argued for a change of work culture. From the mid-1980s the message started to get through. In Britain and Western Europe the message of quality assurance has been a strong one in the past 15 years, with major companies taking on board the message of quality. The European Foundation for Quality Management (EQFM), established by 14 major European companies including Volkswagen, BT and Phillips, has been a major force for developing this new quality culture.

The movement for total quality in education is of more recent origin. There were few references in the literature before the late 1980s. Much of the pioneering work on TQM was carried out by community colleges in the USA and by further education colleges in the UK. The US initiatives developed somewhat before those in Britain, but in both countries the surge of interest occurred from 1990 onwards. Many of the ideas associated with TQM are now well developed in higher education and notions of quality assurance have started to become mainstream in schools. In 2001 there was an EFQM European Quality Award winner from a school in Northern Ireland. St Mary's College, an all-girls school in Londonderry, took the award, with the runner-up being another school from the UK, the City Technology College, Kingshurst. Both are proof that the quality movement is becoming mainstream in education.

Despite the recognition of the need to develop quality cultures there is still a residual reluctance in some areas of education to embrace what some traditionalists see as industrial management methodologies and language. That may account for the lateness with which the vision of the quality movement has reached education. Some educationalists dislike drawing analogies between educational processes and the manufacture of industrial products. However, there is a growing willingness to explore the lessons of industry. Recent initiatives such as the growth of education business partnerships have brought education and business closer together and have made industrial concepts far more acceptable.

2
Quality

> *'Soon the thought interrupted again. Quality? There was something irritating, even angering about that question. He thought about it, and then thought about it some more, and then looked out of the window, and then thought about it some more. Quality?… It wasn't until three in the morning that he wearily confessed to himself that he didn't have a clue as to what Quality was, picked up his briefcase and headed home…and when he woke up the next morning there was Quality staring him in the face.'*
>
> *Robert M Pirsig,* Zen and The Art of Motorcycle Maintenance

Quality is difficult to define and is an elusive concept. Naomi Pfeffer and Anna Coote have even described it as *'a slippery concept'* (1991). It is *slippery* because it has such a variety of meanings and the word implies different things to different people. While everyone is in favour of providing quality education, the arguments start when we attempt to define what quality means. It is necessary to have a clear understanding of the various meanings or there is a danger that it becomes a mere catchphrase, a word with high moral tone but little practical value.

The idea of quality

A possible reason for the enigmatic nature of quality is that it is a dynamic idea. The emotional and moral force that quality possesses makes it difficult to define accurately. In fact, there is an argument against attempting too precise a definition. There is the danger that much of the vitality of the concept can be lost if it is subjected to too much academic analysis. Westley and Mintzberg (1991) make the point

that this happens to many important concepts that are freely used in practical settings:

> *A strange process seems to occur as concepts such as culture and charisma [and we can add quality] move from practice to academic research. Loosely used in practice, these concepts, as they enter academia become subjected to a concerted effort to force them to lie down and behave, to render them properly scientific. In the process they seem to lose emotional resonance, no longer expressing the reality that practitioners originally tried to capture.*

While heeding this advice, nevertheless it is important to take a tour of the concept. There is so much baggage attached to the idea of quality that without some understanding of its philosophical underpinnings it is difficult to build the management structures necessary to achieve the goal of improving the education of students.

Quality as an absolute

Quality has a variety of ambiguous and contradictory meanings. Much of the confusion over the meaning of quality arises because it can be used both as an absolute and as a relative concept. Quality in much everyday conversation is used as an absolute—*this is a thing of quality.* The word quality comes from the Latin *qualis* meaning *what kind of.* The quality of something can be said to be a part of its nature.

People use quality freely when describing expensive restaurants and luxury cars. Used as an absolute quality it is similar in nature to goodness, beauty and truth. It is an ideal with which there can be no compromise. As an absolute, things that exhibit quality are of the highest possible standard that cannot be surpassed. *Quality* products are things of perfection made with no expense spared. They are valuable and convey prestige to their owners. *Quality cars,* for example, are hand-built and expensive and have interiors of walnut and leather. Rarity and expense are two of the features of quality in this definition. Quality in this sense is used to convey status and positional advantage, and the ownership of things of *quality* sets their owners apart from those who cannot afford them. Quality is a concept with class. It is synonymous with *high quality* or *top quality.* To quote Pfeffer and Coote (1991) on the subject, ‘most of us admire it, many of us want it, few of us can have it’.

Used in the educational context, this concept of quality is essentially elitist. By definition only a few institutions are able to offer such a *high quality* educational experience to their learners. Most learners cannot afford it, and most institutions cannot aspire to provide it.

The relative notion of quality

Quality in the technical sense is largely a relative concept. The relative definition views quality not as an attribute of a product or service, but as something which is ascribed to it—'the quality of your essay varies between good and excellent'. Quality in this sense is about being measured against criteria. It is not an end in itself, but a means by which the end product is judged as being up to (or not up to) standard.

Quality products or services, in this relative or ascribed definition, need not be expensive or exclusive. They may be beautiful, but not necessarily so. They do not have to be luxurious or special. They can be ordinary, commonplace and familiar. Overhead projectors, laptops, ballpoint pens and the school catering service may all exhibit quality. Any product or service can aspire to the label *quality.* They do not have to be exclusive. While the absolute notion is elitist, the relative notion is potentially egalitarian. What allows the label of quality to be ascribed to any product or service is that it meets the standards set for it. It must do what is claimed for it, and do what its customers expect of it. In other words it must be *fit for purpose,* as the British Standards Institution defines quality. In this relative sense quality is about measuring up to predetermined standards and meeting those standards time and time again.

Two concepts of quality

The relative definition of quality has two aspects to it. The first is concerned with *measuring up* and ensuring conformity to a predetermined specification. The question that is asked is 'Does this good or service do what is asked or expected of it?' This is fitness for purpose. This is sometimes called the producer definition of quality or the procedural concept of quality.

In an industrial setting quality is achieved by products or services meeting a predefined specification in a consistent fashion. Quality is demonstrated by a producer having a system, known as a *quality assurance system,* that supports the consistent production of the good or service to a particular standard or specification.

In this definition popular cars as well as luxury models can be quality products. Luxury, beauty, exclusivity and price do not enter into the equation. It does not matter whether they are Fords or Rolls-Royces so long as products conform to manufacturers' specifications and standards. Both can be quality products. A product exhibits quality so long as it consistently meets the maker's claims for it. This view of quality is sometimes called *quality in fact.* Quality in fact is the basis of the quality assurance systems devised in accordance with the international standard ISO9000, which is described in Chapter 5.

The procedural concept places considerable emphasis on working to defined systems and procedures. This is seen as the method most likely to produce a standardized or quality outcome. Quality is achieved by putting systems and procedures into operation and ensuring that those systems are efficiently and effectively operated. It is the audit trail approach to quality. Today much quality work is concerned with finding appropriate evidence about the way particular activities within the institution have been carried out. The procedural concept is about *proving* that things have happened in accordance with predetermined specifications. It ensures that activities conform to requirements, although critics of the approach argue that it can stifle creativity and innovation.

Proving, approving and *reporting* are the key descriptors of this largely instrumental approach to quality. It is an *accountability or audit approach* that is concerned to ensure consistency and conformity. It is based on the predominantly *hard indicators* of measurable performance. In education hard quality indicators include public examination league tables for schools and colleges.

Transformational quality is different. It has less to do with systems and procedures and more to do with continuous improvement and organizational transformation. This concept views quality as a complex process with a wider canvas. It focuses on the *softer* and more intangible aspects of quality. These softer concepts include care, customer service and social responsibility, and often go to the heart of the difficult and intangible issues of customer satisfaction and delight. It is often said that while the procedural notions of quality are essential and necessary they are by themselves not sufficient to ensure customer loyalty. The things that bring customers back time and time again and hold their allegiance are often centred on personal service and customer care.

Transformational quality is achieved not through adhering to systems and procedures, but through the exercise of leadership. It is leadership

that establishes a vision that translates into customer service and builds the structures and organizational culture that empower staff to deliver a quality service.

Whereas the procedural concept is about *proving,* the transformational approach is about *improving.* It is about *doing things right,* not just *doing the right things.* It is a state of organizational mind that sees continuous improvement at the very heart of the quality process. Transformational quality blends the aspirations of customers with the empowerment of staff. It takes a wide and more eclectic view of quality. It puts the customer first and seeks to expand their horizons. In an education setting the trans formational culture is a function of staff motivation and academic leadership in a setting that is student centred.

Transformational transformational quality aims for excellence and is satisfied with fitness for purpose. This is not to confuse it with the absolute definition of quality. *Excellence* is an aspiration, a striving. What transformational quality is about is aiming high and ensuring that there is a quality improvement agenda in place.

The important part of making the distinction between the procedural and the transformational ormational aspects of quality is not to label one right and the other wrong. Both concepts play a key role in understanding quality. The point of the distinction is to recognize that there are different approaches to achieving quality. The pursuit of quality is an exercise requiring not only well-developed and understood systems and procedures but also a customer-oriented transformational culture where individuals are given the responsibility for the quality of the work in their area and can contribute fully to its achievement.

The consumer's role in quality

Any discussion about the nature of quality has to centre on the crucial role of the consumer. Who should decide whether a school or college is providing a quality service? The answer will tell us much about the values and aspirations of the institution. It is essential to have a clear idea of who is ascribing the attribute of quality. The views of producers and consumers are not always identical. It does happen that consumers reject perfectly good and useful products and services. Providing a service to specification does not guarantee success.

Organizations that follow the TQM path regard quality as being defined by their customers. They are the final arbitrators of quality and without them the institution will not exist. The institution that champions TQM as its philosophy has to use all means at its disposal to

explore their customers' needs. As Edwin L Artzt, the Chairman and Chief Executive of the Procter and Gamble Company, has put it:

> *Our customers are both those who retail our products and those who ultimately use them. Total quality means knowing them in ways and depths never fully explored before and using this knowledge to translate needs into innovative new products and business approaches.*

Quality can be defined as that which satisfies and exceeds customers' needs and wants. This is sometimes called *quality in perception.* Quality can be said to be in the eyes of the beholder. This is a very important and powerful definition, and one that any institution ignores at its peril. It is the consumers who make the judgements on quality.

Tom Peters in a discussion of the pivotal role of the consumer in quality (1987) argues that the *perceived* quality of a business's product or service is the most important single factor affecting its performance. He argues that quality as defined by the customer is more important than price in determining the demand for a majority of goods and services. As he says of his researches over the years:

> *my unequivocal findings: (1) customers—individual or industrial, high tech or law, science-trained or untrained—will pay a lot for better, and especially for best, quality; moreover, (2) firms that provide that quality will thrive; (3) workers in all parts of the organization will become energized by the opportunity to provide a top quality product or service; and (4) no product has a safe quality lead, since new entrants are constantly redefining, for the customer, what's possible.*

Quality control, quality assurance and total quality

As well as providing a definition of quality, it is necessary to understand the difference between three other important quality ideas. These are the distinctions made between quality control, quality assurance and total quality.

Quality control is the oldest quality concept. It refers to the detection and elimination of components or final products that are not up to standard. It is an after-the-event process concerned with detecting and rejecting defective items. As a method of ensuring quality it may involve a considerable amount of waste, scrap and reworking. Quality

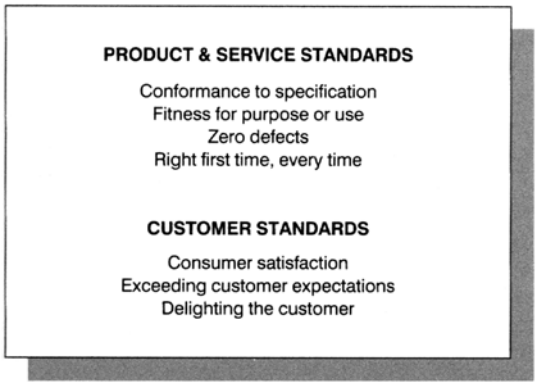

Figure 2.1 *Quality standards*

controllers or inspectors usually carry out quality control. Inspection and testing are the most common methods of quality control, and are widely used in education to determine whether standards are being met.

Quality assurance is different from quality control. It is a before and during the event process concerned to prevent faults occurring in the first place. Quality assurance is about designing quality into the process to attempt to ensure that the product is produced to a predetermined specification. Put simply, quality assurance is a means of producing defect- and fault-free products. The aim in the words of Philip B Crosby is 'zero defects'. Quality assurance is about consistently meeting product specification or *getting things right first time, every time.*

The quality of the good or service is assured by there being a system in place, known as a quality assurance (QA) system, that lays down exactly how production should take place and to what standards. Quality standards are maintained by following the procedures laid down in the QA system. Quality assurance is the responsibility of the workforce, usually working in quality circles or teams, rather than the inspector, although inspection can have a role to play in quality assurance.

Total quality management incorporates quality assurance, and extends and develops it. TQM is about creating a quality culture where the aim of every member of staff is to delight their customers, and where the structure of their organization allows them to do so. In TQM the customer is sovereign. It is the approach popularized by Peters and Waterman (1982), and which has been a constant theme of Tom Peters' writings ever since.

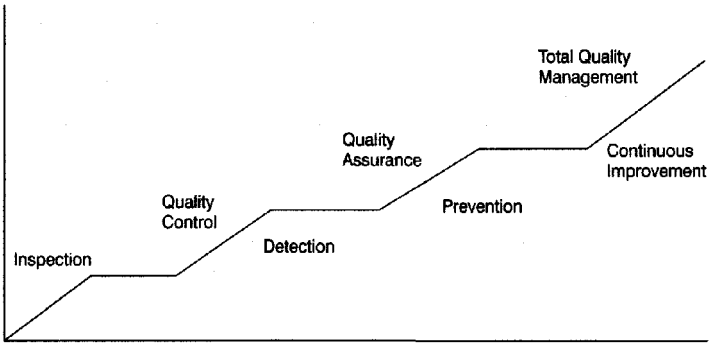

Figure 2.2 *The hierarchy of quality concepts*

TQM is about providing the customer with what they want, when they want it and how they want it. It involves moving with changing customer expectations and fashions to design products and services that meet and exceed their expectations. Only by delighting customers will they return and tell their friends about it (this is sometimes called the sell-on definition of quality). The perceptions and expectations of customers are recognized as being short term and fickle, and so organizations have to find ways of keeping close to their customers to be able to respond to their changing tastes, needs and wants.

The educational product

It is always necessary to ask two fundamental questions when trying to understand quality in any situation. The first is 'What is product?' The second is 'Who are the customers?' These questions are equally applicable to the discussion of quality in education.

The product of education is an area of difficulty. There are a number of different candidates for it. The pupil or the student is often spoken about as if they fulfil that role. In education we often talk as though learners are the output, especially with reference to the institution's perceived performance over discipline and behaviour. Terms like 'the supply of graduates' make education sound like a production line with students emerging from the end of it. The problem with this definition is that it is difficult ficult to square it with much educational practice.

For a product to be the subject of a quality assurance process the producer needs firstly to specify and control the source of supply.

Secondly, the 'raw material' must pass through a standard process or set of processes, and the output must meet predetermined and defined specifications. Such a model does not easily fit education, although there are those who might wish it would. Such a model would clearly require an initial selection of learners to be made. Some sectors of education do this, but many, following the comprehensive principle of open access, do not. However, it is from there on that the analogy begins to fall apart. While processes such as the national curriculum and the specification of standards and competencies in National Vocational Qualifications (NVQs) in the UK have improved the standardization of the process, nevertheless the process of education is anything but uniform.

It is impossible to produce pupils and students to any particular guaranteed standard. As Lynton Gray has put it in his very useful discussion of the issue:

> *Human beings are notoriously non-standard, and they bring into educational situations a range of experiences, emotions and opinions which cannot be kept in the background of the operation. Judging quality is very different from inspecting the output of a factory, or judging the service provided by a retail outlet.*

The idea of the learner as the product misses the complexities of the learning process and the uniqueness of each individual learner. What then is the product? Rather than answer this directly it is more helpful to view education as a service rather than a production line. The distinction between a product and a service is important because there are fundamental differences between them that have a bearing on how their quality can be assured.

Service quality

Service quality characteristics are more difficult to define than those for physical products. This is because they include many important subjective elements. The causes of poor quality and quality failure are materially different for services and products. Products often fail because of faults in raw materials and components. Their design may be faulty or they may not be manufactured to specification. Poor quality services, on the other hand, are usually directly attributable to an organization's behaviours or attitudes. They often result from lack of

leadership, care or courtesy. Indifference, lack of training or concern are the principal reasons for a breakdown of service.

Services differ from production in a number of important ways. There are major differences between delivering a service and manufacturing goods. The first difference between the two is that services usually involve direct contact between the provider and the end-users. Services are delivered directly by people to people. There is a close relationship between the customer and the person who delivers the service. The service cannot be separated from the person delivering it or from the person receiving it. Every interaction is different, and the customer in part determines the quality of the interaction. The quality of the service is determined both by the person delivering and the person receiving the service. Unlike prod ucts, there can be no absolute consistency or homogeneity in service delivery. The consistency of the service can only be within boundaries.

Time is the second important element of service quality. Services have to be delivered on time, and this is as important as their physical specification. Additionally, as a service is consumed at the moment of delivery the control of its quality by inspection is always too late. The close personal interactions found in services allow multiple opportunities for feedback and evaluation and these provide the main, but not the only, means of judging whether customers are satisfied with it.

The third difference is that, unlike a product, a service cannot be serviced or mended. A poor meal is a poor meal. It cannot be repaired. For this reason it is important that the standard for services should be right first time, every time. Paradoxically, it is the high possibility of human error and failing that makes it difficult if not impossible to achieve the right first time standard. Nevertheless, this should always be the aim.

Fourthly, services face the problem of intangibility. It is often difficult to describe to potential customers exactly what is being offered. It is equally difficult on occasions for customers to describe what they want from the service. Services are largely about process rather than product. It is usually more important how an outcome is arrived at than what the outcome is.

The fact that services are usually rendered directly to customers by junior employees is the fifth distinguishing feature of a service. Senior staff are generally remote from customers. Most customers never have access to senior managers. The quality of the initial interactions colours the view customers have of the whole organization, and so the

organization has to find ways of motivating front-line employees always to deliver of their best. This is why training and staff development are of crucial importance. While senior managers may not serve at the front in service organizations they must lead from the front and convey to their staff their vision of the service and the standards they want set for or it.

Lastly, it is very difficult to measure successful output and productivity in services. The only meaningful performance indicators are those of customer satisfaction. Intangibles or soft measures are often as important to success and to the customer as are hard and objective performance indicators. Soft indicators such as care, courtesy, concern, friendliness and helpfulness are often uppermost in customers' minds. Intangibility makes it very difficult to turn round poor service, because it is sometimes impossible to convince dissatisfied customers that a service has changed for the better. Consumers judge quality by comparing their perceptions of what they receive with their expectations of it. Much of this is also true for education. Reputation is crucial to an institution's success, but the origin of that reputation often defies analysis and measurement. What we do know is that reputation has a great deal to do with the care and concern shown to pupils and students.

For the purposes of analysing quality it is more appropriate to view education as a service industry than as a production process. Once this view is established the institution needs to define clearly the services it is providing and the standards to which they will be delivered. This needs to be carried out in conjunction with all its customer groups, including discussions with governors, parents, and with industry directly or via local education business partnerships.

Education and its customers

We have defined education as a provider of services. Its services include advice, tuition, assessment and guidance to pupils and students, their parents and sponsors. The customers—the stakeholders of the service—are a very diverse group and need identifying. If quality is about meeting and exceeding customer needs and wants, it is important to be clear whose needs and wants we should be satisfying.

It is important to say something about the idea of a 'customer' in the context of education. To some educationalists 'customer' has a distinctly commercial tone that is not applicable to education. They prefer to use 'client' instead. Client, with its connotations of professional service, is seen as more appropriate. 'Stakeholder' is

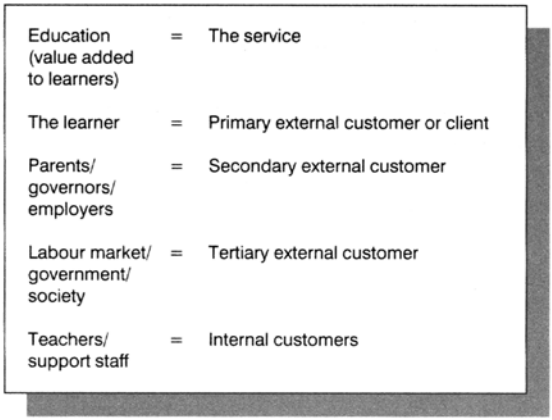

Figure 2.3 *The customers of education*

another term often used in this context. Others reject all such language and would rather stay with 'pupil' or 'student'. Language is important if an idea is to be acceptable.

Some people would make a distinction between *clients,* who are the primary beneficiaries of the education service, and *customers,* who pay for it but who may be once removed, such as parents, governors, employers or government. The diversity of customers makes it all the more important for educational institutions to focus on customer wants and to develop mechanisms for responding to them. It can be helpful to make distinctions between:

- primary customers—who directly receive the service;
- secondary customers—such as parents, governors, sponsoring employers of vocational students, all of whom have a direct stake in the education of a particular individual or in a particular institution;
- tertiary customers—who have a less direct but nonetheless crucial stakeholding in education, such as future employers, government and society as a whole;
- internal customers—who are the employees of the institution and who have a critical stakeholding in the organization's success.

The needs and views of the various customer groups, whether they are internal or external, do not always coincide, especially in large and complex institutions, although the conflict can equally be present in

small ones. Potential and actual conflicts of customer interest will always exist. One of the best methods of resolving different interests is to recognize their existence and to look for the core of issues that unite the various parties. All stakeholders need to have their views listened to and to be treated fairly. Quality and justice go hand in hand. This is particularly the case when dealing with complaints, which are instances of those critical incidents where it is possible to judge how committed an institution is to a customer-first approach.

It is often difficult to ensure that the primary customers' views are paramount. There are strong forces pulling against it, not least those that can be exerted by funding processes and mechanisms. Where the needs of the learner and funding mechanisms collide, it is very difficult for an institution to put its learners first. This is particularly the case where funding mechanisms emphasize efficiency that can only be achieved at the cost of quality. For example, a staffing cut may lead to a higher pupil-teacher ratio; or a funding cut may lead to a reduction in service that may not accord with what customers are feeding back. This is a very difficult issue to resolve and TQM does not provide ready answers to it. What it does is to ensure that the institution's processes keep the learners' views centre stage.

3
TQM

'Quality is Free.'

Philip Crosby

In the previous chapters the concept of quality was explored. We need now to see how these can come together in TQM and explain its salient features for any school, college or university contemplating its introduction. This chapter explains the key ideas behind TQM in education, as well as exploring some of the myths about it.

TQM—some misconceptions

Before defining the elements of TQM in education it may be useful to say a few words about what TQM is not. TQM is not an imposition. It cannot be done to you or for you. For TQM to work, an institution must itself want to introduce it. It is not inspection. It is about always trying to do things right first time and every time, rather than occasionally checking if they have gone wrong.

TQM is not about working to someone else's agenda, unless your customers and clients have specified the agenda. It is not something that only senior managers do and then pass their directions down the line. The *total* in TQM dictates that everything and everybody in the organization is involved in the enterprise of continuous improvement. The *management* in TQM likewise means everyone, because everyone in the institution, whatever their status, position or role, is the manager of their own responsibilities. This is a difficult idea to put across, and it is the reason why some organizations talk, as Rolls-Royce do, about Total Quality rather than TQM.

TQM programmes do not have to use the initials TQM. Many organizations pursue the philosophy under their own brand name. Boots

the Chemist calls its extensive quality programme ‘Assured Shopping’. American Express use the initials AEQL, which stands for American Express Quality Leadership. They prefer to emphasize ‘leadership’ rather than management.

Total quality control, total quality service, continuous improvement, strategic quality management, systematic improvement, quality first, quality initiatives, service quality are some of the many titles used to describe what in this book is called TQM. If a school, for example, felt that it wanted to call its initiative ‘Pupils First’ or ‘The School Improvement Programme’ then it should feel free to do so. It is not the name that is important, but the effect that the quality programme will have on the culture of the school. The pupils and their parents will be interested in the change it brings, not what the initiative is called.

TQM is used to describe two slightly different but related notions. The first is a philosophy of continuous improvement. The second related meaning uses TQM to describe the tools and techniques, such as brainstorming and force-field analysis described in Chapter 10, which are used to put quality improvement into action. TQM is both a mind-set and a set of practical activities—an attitude of mind as well as a method of promoting continuous improvement.

Continuous improvement

TQM is a practical but strategic approach to running an organization that focuses on the needs of its customers and clients. It rejects any outcome other than excellence. TQM is not a set of slogans, but a deliberate and systematic approach to achieving appropriate levels of quality in a consistent fashion that meet or exceed the needs and wants of customers. It can be thought of as a philosophy of continual improvement only achievable by and through people.

As an approach, TQM represents a permanent shift in an institution’s focus away from short-term expediency to the long-term quality improvement. Constant innovation, improvement and change are stressed, and those institutions that practise it lock into a cycle of continuous improvement. They make a conscious attempt to analyse what they are doing and plan to improve it. To create a continuous improvement culture, managers have to trust their staff and to delegate decisions to the appropriate level to give staff the responsibility to deliver quality within their own sphere.

Kaizen

TQM is usually accomplished by a series of small-scale incremental projects. The Japanese have a word for this approach to continuous improvement—*kaizen.* This is most easily translated as 'step-by-step improvement'. The philosophy of TQM is large-scale, inspirational and all-embracing, but its practical implementation is small-scale, highly practical and incremental. Drastic intervention is not the means of change in TQM. Grandiose schemes are not the way forward, because often they f founder f or lack of resources, and their demise can breed cynicism and discontent.

The essence of kaizen is small projects that seek to build success and confidence, and develop a base for further ventures in improvement. By way of illustration, Joseph Juran talks of 'elephant-sized' and 'bite-sized' projects. He argues that the best way to tackle the 'elephant-sized' projects is to divide them up into manageable 'bite-sized' assignments. He recommends assigning one team the task of 'cutting-up the elephant' (Juran, 1989). Solid and lasting change is based on a long series of small and achievable projects. It is necessary to make change carefully, process by process, issue by issue. Over a period of time more is achieved this way than by trying to make large-scale changes. The incremental approach to quality improvement means that implementation needs not be an expensive process. Spending money by itself does not produce quality, although when it is carefully targeted it helps.

Changing cultures

TQM requires a change of culture. This is notoriously difficult to bring about and takes time to implement. It requires a change of attitudes and working methods. Staff need to understand and live the message if TQM is to make an impact. However, culture change is not only about changing behaviours. It also requires a change in institutional management.

Two things are required for staff to produce quality. First, staff need a suitable environment in which to work. They need the tools of the trade and they need to work with systems and procedures which are simple and which aid them in doing their jobs. The environment that surrounds staff has a profound effect on their ability to do their job properly and effectively. Among the important environmental features are the systems and procedures with which they work. Laying down good and

workable procedures by itself does not produce quality, but if procedures are poor or misleading it makes producing quality extremely difficult.

Secondly, to do a good job the staff need encouragement and recognition of their successes and achievements. They deserve leaders who can appreciate their achievements and coach them to greater success. The motivation to do a good job comes from a leadership style and an atmosphere that heightens self-esteem and empowers the individual.

The upside-down organization

The key to a successful TQM culture is an effective internal/external customer-supplier chain. Once the concept has been grasped, it has enormous implications for the organization and the relationships within it. The first casualty is the traditional notion of organizational status. It is the role of senior and middle management to support and empower the teaching and support staff and the learners. Control is not a feature of TQM organizations.

This can most graphically be illustrated by a comparison of the traditional hierarchical organizational chart with its TQM counterpart. The inverted hierarchy is adapted from the ideas of Karl Albretcht. It seeks to illustrate the paradigm shift implicit in TQM. In education it changes the usual set of relationships to one with a clear customer focus. The upside-down organizational focus does not affect affect the structure of authority in the school or college, and neither does it diminish the essential leadership role of senior managers. In fact, leadership is pivotal to the success of TQM. The inverted hierarchy emphasizes service-giving relationships and the importance of the customer to the institution.

Keeping close to the customers

The primary mission of a TQM institution is to meet the needs and wants of its customers. Excellent organizations, both public and private, keep ‘close to the customer’, in the words of Peters and Waterman (1982), and have an obsession with quality. They recognize that growth and long-term survival come from matching their service to customer needs. Quality must be matched to the expectations and requirements of customers and clients. Quality is what the customer wants and not what

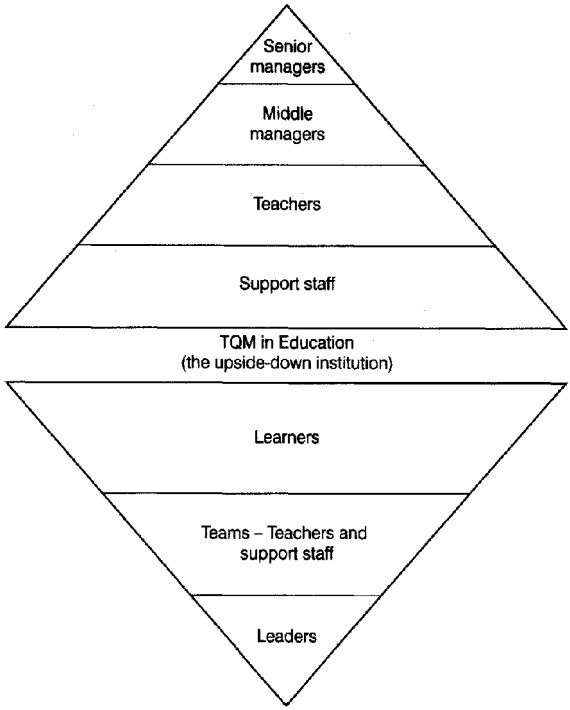

Figure 3.1 *The hierarchical institution and the upside-down institution in education*

the institution decides is best for them. Without customers there is no institution.

A customer focus is, however, not by itself a sufficient condition for ensuring total quality. TQM organizations need fully worked out strategies for meeting their customers' requirements. Education faces a consid erable challenge in its relationships with its external customers. Many customers are often initially uninformed both about the service and what constitutes its quality. Additionally, expectations are diverse and often contradictory. The quality of particular programmes is often confused in the public mind with the reputation of the institution. Learners' perceptions of quality change as they progress through the institution and their experience and confidence grow.

A further difficulty is that education's customers play an important role in the quality of their own learning. The customers have a unique

function in determining the quality of what they receive from education. There are difficulties with notions of consistency in the interactive process of learning. To overcome some of these problems it is necessary to ensure the motivation of both the learners and the staff who serve them. It is also important to making clear what is being offered and what is expected of learners.

Internal customers

The customer focus aspect of TQM does not just involve meeting the requirements of the external customers. Colleagues within the institution are also customers, and rely upon internal services of others to do their job effectively. Everyone working in a school, college or university is both a supplier of services and a customer of others. Each member of staff both gives and receives services. Internal customer relationships are vitally important if an institution is to function efficiently and effectively. The best way of developing the internal customer focus is to help individual members of staff to identify the people to whom they provide services. This is known as the next-in-line analysis.

It revolves round the following questions: 1) Who do you primarily provide a service to? 2) Who relies upon you do to do their job properly?

The people next-in-line are your direct customers, whether they are external to the institution or internal to it. It is important to find out what they want and to have a good idea of the standards they require. The standards may be contractual, but they may also be negotiable. Notions of status and hierarchy do not enter into this relationship. The standard of service that is provided to someone junior is as important as the service provided to the Headteacher, the Principal or the Chair of Governors.

Internal marketing

It is staff that make the quality difference. They produce successful courses and satisfied clients. Internal marketing is a useful tool for communicating with staff to ensure they are kept informed about what is happening in the institution and have the opportunity to feed back ideas. Simply, the idea of internal marketing is that new ideas, products and services have to be as effectively marketed to staff as they are to clients. Staff cannot convey the message of the institution to potential

customers without proper product knowledge and an enthusiasm for the institution's aims. Internal marketing is a stage on from communicating ideas. It is a positive and proactive process that demands a commitment to keep staff informed and to listen to their comments.

Professionalism

There is also the additional dimension of a professional workforce in education who have traditionally seen themselves as the guardians of quality and standards. TQM's emphasis on the sovereignty of the customer may cause some conflict with traditional professional concepts. This is a difficult area, and one that will need to be considered by any educational institution taking a total quality route. Training for teachers in quality concepts and thinking is an important element in the required culture change. Staff have to understand how they and their pupils and students will benefit from a change to a customer focus. Total quality is about more than being 'nice to customers and smiling'. It is about listening and entering into a dialogue about people's fears and aspirations. The best aspects of the professional role are about care and high academic and vocational standards. Blending the best aspects of professionalism with total quality is essential to success.

The quality of learning

Education is about learning. If TQM is to have relevance in education it needs to address the quality of the learners' experience. Unless it does that, it will not make a substantial contribution to quality in education. In a period when most institutions are being asked to do more with less, it is important that they focus on their prime activity—learning.

Learners learn best in a style suited to their needs and inclinations. An educational institution that takes the total quality route must take seriously the issue of learning styles and needs to have strategies for individualization and differentiation in learning. The learner is the primary customer, and unless learning styles meet individual needs it will not be possible for that institution to claim that it has achieved total quality.

Educational institutions have an obligation to make learners aware of the variety of learning methods available to them. They need to give learners opportunities to sample learning in a variety of different styles. Institutions need to understand that many learners also like to switch

and mix-'n'-match styles and must try to be sufficiently flexible to provide choice in learning.

Much work has still to be done on how best to use TQM principles in the classroom. A start can be made with the learners and their teachers establishing their 'mission'. This could be 'All Shall Succeed'. From this, negotiation might take place about how the parties will achieve the mission—the styles of learning and teaching and the resources they require.

Individual learners should negotiate their own action plans to give them motivation and direction. The process of negotiation may require the establishment of a quality steering committee or forum to provide feedback and to give the learners an opportunity to manage their own learning. Parents or employers might well be represented on it. Both teachers and students can ensure that all are on track by undertaking detailed monitoring through progress charting. This is important to ensure that timely and appropriate corrective action can be applied if there is a danger of failure.

The establishing of a strong feedback loop is an important element of any quality assurance process. Evaluation should be a continuous process and not just left until the end of the programme of study. The results of evaluation processes should be discussed with the students, perhaps by means of completing a record of achievement. The very act of being involved in evaluation will assist in building up the students' analytical skills.

It is important that the institution uses the results of the formal monitoring to establish the validity of its programmes. It must be prepared to take the necessary corrective action if the customers' experiences do not meet their expectations. None of this is easy, as teachers who have pioneered such processes know. It can be an emotional experience and one that can take unexpected turns. What it does is to provide students with motivation and the practical experience of the use of TQM tools that are transferable to other situations.

Barriers to introducing TQM

TQM is hard work. It takes time to develop a quality culture. By themselves hard work and time are two of the most formidable blocking mechanisms to quality improvement. TQM needs a champion in the face of the myriad of new challenges and changes facing education. Quality improvement is a fragile process. All major changes are. Cultures are essentially conservative and homeostasis is the norm. Staff

are most comfortable with what they know and understand. However, to stand still while competitors are improving is a recipe for failure.

If TQM is to work it must have the long-term devotion of the senior staff of the institution. They must back it and drive it. Senior management may themselves be the problem. They may want the results that TQM can bring, but be unwilling to give it their wholehearted support. Many quality initiatives falter because senior managers quickly return to traditional ways of managing. Fear by senior managers of adopting new methods is a major barrier. This is potentially the most serious of blockages. If senior management do not give TQM their backing there is little that anyone else in the organization can do.

The sheer volume of external pressures also stands in the way of many organizations attempting TQM. Although quality programmes are introduced with considerable publicity, too often they can be overtaken and submerged by other initiatives. There is a need to ensure that, despite other pressures, quality always has an important place on the agenda. This is where strategic planning plays such an important role. If TQM is firmly a part of the strategic role of the institution, and if there are good monitoring mechanisms in place, then there is a good chance that quality will keep a high profile. This makes it harder to ignore, and increases the chances of it being taken seriously.

The strategic plan can help staff understand the institution's mission. It helps to bridge gaps in communication. There is a need for staff to know where their institution is going and how it will be different in the future. Senior managers must trust their staff sufficiently to share their vision for the institution's future. Visions are often not shared because of a fear of a loss of status and disempowerment by managers. When coupled with a fear of delegation by managers this can make quality development nearly impossible. Managers have to be able to let their staff take decisions and be willing to see them make honest mistakes.

A potential problem area in many institutions is the role played in it by middle management. They have a pivotal role because they both maintain the day-to-day operation of the institution and act as one of its most important communications channels. They can often block change if they have a mind to or they can act as the leaders of teams spearheading the impetus for quality improvement. Middle managers may not define their role as one of innovation unless senior management communicates to them their vision of a new future. Senior managers must be consistent in their behaviour when advocating and communicating the message of quality improvement. They cannot say one thing and do another and then expect to engender enthusiasm

among their staff or loyalty and commitment in their middle managers. They have to persuade others that new working methods will pay dividends.

Barriers to quality are not the sole prerogative of managers. Many staff fear the consequences of empowerment, especially if things go wrong. They are often comfortable with sameness. They need to have the benefits demonstrated to them. For this reason TQM must avoid being about nothing but jargon and hype. This can easily lead to a loss of interest and to scepticism and cynicism, and to the belief that nothing makes any difference. Many of the barriers to TQM involve an element of fear and uncertainty. Fear of the unknown, of doing things differently, of trusting others, and of making mistakes, are powerful defence and resistance mechanisms. Staff cannot give of their best unless they feel that they are trusted and their views listened to. Deming argues that it is essential when undertaking the quality revolution to 'drive out fear', and it is imperative to take this message seriously when building a quality institution.

4
Gurus

'Adopt the new philosophy.'
The second of W Edwards Deming's 14 points

This chapter is about five of the most influential writers on quality. W Edwards Deming, Joseph Juran, Philip B Crosby, Tom Peters and Kaoru Ishikawa have had an enormous influence on the development of TQM. They all concentrated on quality issues in industrial settings, although all claim that their ideas are equally applicable to service industries. None of them, except Peters, has given much consideration to quality issues in education. Nevertheless, their contribution to the quality movement has been so great that it is difficult to explore quality in education without recourse to their thinking. There is much that can be learnt from them and their ideas can be readily adapted to education. There is much overlap in their thinking and in the main their general conclusions complement each other.

W Edwards Deming

Deming on quality

W Edwards Deming's most important book, *Out of the Crisis,* was published in 1982. He wrote in response to the crisis that he believed US industry was facing—a crisis provoked by the onslaught at the time of better quality Japanese products, products whose quality he had done much to improve. His aim in the book was nothing less than to 'transform the style of American management'. As he goes on to say in the preface, it is 'not a job of reconstruction or revision… It requires a whole new structure, from the foundation upwards'.

Deming was concerned that the management of companies in the US at the time were operatmg on the wrong paradigm. There was a failure to plan for the future and to foresee problems before they arose. He believed that this fire-fighting approach to management was wasteful and raised costs and hence the price that customers pay. It was based on short-term thinking that did little to focus on the key issue of product quality. This allowed competitors who operated a different management paradigm to wrest markets and market share from them. The result was a loss of markets and with it a forfeiture of employment.

Deming saw the problem of quality lying primarily with management. This was an important insight because the dominant view of the time was that quality issues were the workers' fault. Shoddy workmanship was often blamed for quality problems. Deming showed that not only was a blame culture counterproductive, but if blame had to be apportioned it lay with management. The basic cause of industrial quality problems, according to Deming, was the failure of senior management to plan ahead. They controlled the resources available to the company and through their policies had the major impact on its culture. Through their actions they were responsible for the quality of the products they produced.

To provide a guide to how to manage for quality, Deming produced his famous 14 points. They were a mixture of important management principles and insights into employee psychology. They were his blueprints for the development of a quality culture. His emphasis throughout was on prevention rather than cure.

1. **Create constancy of purpose for improvement of the product and service, with the aim to become competitive and to stay in business, and to provide jobs.** Deming believes that too many organizations have only short-term goals and are not looking 20 or 30 years ahead. They need to have long-term plans based on a vision for the future and new innovations. They should seek to meet the constantly changing needs of their customers.
2. **Adopt the new philosophy.** Organizations can no longer compete if they continue to live with the commonly accepted levels of delay, mistakes, defective materials and faulty products. They have to make the shift and adopt new ways of working.
3. **Cease dependence on mass inspection to achieve quality.** Inspection does not improve or guarantee quality. You cannot inspect quality into products. Instead, Deming argues management should provide their staff with training in the statistical tools and techniques necessary for them to monitor and develop their own quality.
4. **End the practice of awarding business on the basis of price.** For Deming price has no meaning without a measure of the quality being purchased. The practice of awarding contracts solely to the lowest bidder can lead to expensive mistakes. This is particularly the case when a large part of the value of the product is supplied from outside contractors. The quality of the final product is dependent on

Figure 4.1 *Deming's 14 points explained*

the quality of the inputs. The total quality way is to develop close and long-term relationships with a small number of suppliers, and preferably a single supplier, and to work with them on the quality of components.

5. **Improve constantly and forever the system of production and service, to improve quality and productivity, and thus to constantly decrease costs.** It is the task of management to lead the improvement process and ensure that there is a continual process of improvement in operation.
6. **Institute training on the job.** The greatest waste in an organization is a failure to use the talents of its people properly. Money spent on training the workforce is important, but it is equally important to train against a fixed standard of what is acceptable work. Training is a powerful tool of quality improvement.
7. **Institute leadership.** Deming says that 'the job of management is not supervision, but leadership'. This means a shift away from traditional management concerns with outcomes – performance indicators, specifications and appraisals – and a move towards a leadership role which encourages improvements to the processes of producing better goods and services.
8. **Drive out fear, so that everyone may work effectively for the company.** Security is the basis on which staff motivation depends. Deming believes that people genuinely want to do a good job providing they work in an environment which encourages them.
9. **Break down the barriers between departments.** People in different departments need to be able to work together as a team. The organization must not be allowed to have units or departments pulling in different directions.
10. **Eliminate slogans, exhortations, and targets, asking for new levels of productivity without providing the workforce with the methods to do the job better.** Exhortations to work harder represent the abrogation of the job of a manager. Slogans and targets for staff have little practical effect. Most of the problems in production are systemic and it is the responsibility of management to sort them out.
11. **Eliminate work standards that prescribe numerical quotas.** Quality cannot be measured by concentrating solely on the output of the processes. Working to numerical quotas often leads to cutting corners and to a diminution of quality.
12. **Remove the barriers that rob people of their right to pride of workmanship.** This requires the abolishing of appraisal systems and merit ratings. Deming has taken a strong position against appraisal systems which he believes put staff in competition with each other and act against teamwork.
13. **Institute a vigorous programme of education and self-improvement.** The more people know the more they can do. The better educated staff are the better able they will be to undertake quality improvements.
14. **Put everyone in the company to work to accomplish the transformation.** The transformation to a quality culture is everybody's job. It is also the single most important task of management.

The 14 points are Deming's unique contribution to the understanding of quality. In addition, he also developed a guide to the barriers that stand in the way of quality improvement—his 'seven deadly diseases'.

The 'seven deadly diseases' or barriers to a new style of management are very much rooted in US industrial culture. Two of them—excessive

medical costs and the prohibitive and unproductive costs of litigation—have little relevance for us in the educational context. However, the other five are of considerable significance as they help us to understand the reasons that inhibit creativity and new thinking.

The first disease Deming called the lack of *constancy of purpose.* He believed that this is the most crippling disease in an organization. It not only prevents many organizations adopting quality as a management objective but it inhibits the development of a clear vision. Without constancy of purpose it is difficult to motivate and enthuse the workforce.

It is linked closely with his second barrier—*short-term thinking.* The switching of the emphasis to a long-term vision and the development of a culture of improvement are what he advocates in its place. Educationalists, who have faced so many changes of direction in recent years, will find much that is familiar in Deming's emphasis on the need for a long-term coherent strategy.

The third deadly disease concerns the *evaluation of an individual's performance through merit ratings or annual review.* Deming opposed performance appraisal schemes, and has argued that they lead to short-term solutions and under-performance. Inevitably, appraisal has to be based on measurable outcomes and often these provide a misleading view of what is important in the process. He did not believe that the quality of an employee's contribution could be reduced to measurable results. He also believed that, rather than improving performance, appraisal often has the opposite effect, with staff concentrating on what was important for gaining a good performance rating rather than developing a pride in their work. He believed that performance appraisal had the effect of putting staff in competition with each other rather than welding them into teams.

Deming's wholehearted opposition to performance review throws down the gauntlet to much of the current trend for teacher appraisal. Institutions that intend to pursue TQM will need to consider very carefully how to blend it with externally imposed schemes of appraisal. Merely because Deming is an opponent of appraisal does not mean that the two are incompatible, but it does require that special consideration is given to the way appraisal is conducted to ensure that it does not lead to the effects effects abhorred by Deming. The compromise is to ensure that appraisal is always a positive and a developmental process and does not lead to competition between staff.

His fourth deadly disease is *job-hopping.* Deming contrasts excessive turnover of executive talent in the West with the stability of employment

in Japanese companies. Certainly schools that experience high rates of teacher turnover fully appreciate the impossibility of maintaining any long-term consistency of purpose.

The last of his barriers to quality is *management by the use of visible figures.* Deming says that this is something that is peculiar to US industry, but schools who are coming to terms with examination results, performance measures and league tables may feel that there is a similar danger for British education. Deming is concerned that organizations that try to measure success through performance indicators may forget that the real measure of success is happy, satisfied customers.

Deming on quality failure

If managers are to take seriously the demands of quality they must understand the reasons for quality failure. An important feature in Deming's work was the analysis of the causes of quality failure. He believed it to be necessary to understand the causes of problems if they were to be tackled successfully. He distinguished between *common* and *special* causes of failure. Common causes are those that are attributable to systems failure. These systemic problems are internal to the processes of the institution. They can only be solved or reduced in scale if changes are made to the systems, processes and procedures. The other causes of failure he called *special* or *assignable* causes. These produce non-random variations within the system, and the causes are external to it.

Common causes of quality failure

Common causes of poor quality in education can arise from a variety of sources. These can include poor curriculum design, unsuitable and poorly maintained buildings, poor working environment, unsuitable systems and procedures, insufficiently creative timetabling, a lack of necessary resources, and insufficient staff development.

If the cause of a fault or failure can be identified as resulting from a systems, policy or resource problem then it is a *common cause failure.* The management implication is that, to remove the cause of the problem, systems and procedures need to be improved, reorganized or respecified. This may require a change of policy or perhaps the instigation of a new training programme.

The important point to note is that it is only management who can put right such problems. Only they have the authority to make policy or to

redesign systems. Other staff may see the necessity of change but imple mentation will only happen if management takes action. In order to decide the origin and generality of a problem it is necessary to keep data on the extent of failures and to monitor them regularly. Too often in education low attainment is not sufficiently researched and analysed and the causes of failure are not the subject of managerial action.

Special causes of quality failure

Special causes of failure, on the other hand, often arise from procedures and rules not being followed or adhered to, although they may also be attributable to a communications failure or simply to misunderstandings. They may also be the result of an individual member of staff not possessing the necessary skills, knowledge and attitudes required to be a teacher or an educational manager. The special causes of quality problems could include lack of knowledge and skill on the part of particular members of staff, lack of motivation, communications failures, or problems with particular pieces of equipment.

If a problem can be traced to a 'special' cause then it can be put right without the upheaval of a new policy or redesigning the system. Altering systems would be inappropriate and could lead to greater failure.

Tackling special causes is also the responsibility of management. It is perfectly possible for other members of staff to deal with them, but often they lack the authority to tackle them. Many of the 'special' problems in education arise from a small number of individuals who lack the motivation or skills to be effective teachers. Only management has the authority to find the appropriate solution in these instances.

The manager's role in tackling failure

The implications of this distinction between common and special causes are very important to managers. Does a quality failure result from a non-random special cause that may be one-off, or does a common cause problem require a change to the institution's policies, systems and procedures? There is no point in having employee motivational programmes to solve problems that no amount of motivation can solve. The vast majority of problems are the result of poor management or inadequate management systems. Individuals are often blamed when, in fact, the problem results from deficiencies in policies and systems.

Establishing the cause of quality failure and rectifying it is a key task of managers. Too often the wrong people are left to solve problems or inappropriate solutions are taken to correct faults. Far too often individuals are blamed for consequences not of their making, or the wrong people at the wrong level are left to solve problems without the authority to solve the root causes. In such instances they become frustrated when their efforts fail. Deming's simple but significant distinction provides an important insight in dealing with quality failures. Deming was very clear that in the vast majority of cases when things go wrong it is not the staff who are to blame, although too often it is teachers who are seen as the scapegoats for failures in the education system. It is often said in the TQM literature that successful quality improvement requires management commitment. That commitment is not just support for the efforts of others. In practical terms it means recognizing that when things go wrong the responsibility for finding a solution always lies with management.

Deming's profound system of knowledge

In 1994, just after his death at the age of 93, Deming's *The New Economics* was published. This book brought together a number of the major themes that he had preached throughout his career. It centred on his notion that an organization needs to be thought of as a system, and with proper knowledge this system can be managed to yield maximum value for all concerned. This philosophy of management he called his 'system of profound knowledge', which consists of four interrelated parts:

- appreciation of a system;
- knowledge about variation;
- theory of knowledge;
- psychology.

Deming defined a system as 'a network of interdependent components that work together to try to accomplish the aim of the system'. For him any organization has to be treated in a holistic manner and, when managing a part of the organization, consideration has to be given to the effect of changes on all the other parts. It also requires treating staff, customers and suppliers as integral parts of the system. Ultimately, all gain if the system is managed for the benefit of all. To do this

successfully Deming stressed the need for leadership and an approach that emphasized strategic over shortterm thinking.

The second element in the system is knowledge about variation. This reiterates the notion of common and special causes of variation discussed earlier in this chapter. Knowledge of the causes of variation helps inform the actions that are required to improve the quality of the product. This in turn depends critically on whether present variation is or is not in statistical control. Knowledge about variation has considerable implications for how organizations solve problems.

The third element is his theory of knowledge. This is essentially knowledge about knowledge. In emphasizing the importance of knowledge Deming was a forerunner of the 'knowledge management movement', discussed in Chapter 9. He was concerned to demonstrate that organizations needed to understand what knowledge is and is not, how it is acquired and how it can be improved. He was also concerned with the testing of knowledge and the need to refute previous knowledge when new theories showed that past theories no longer explained data. In *The New Economics* he was arguing for management by knowledge. He believed that the alternative was to manage by luck or superstition.

The fourth part of his system of profound knowledge is psychology. From the earliest days of his career he had linked the rigorous application of statistical analysis with good human relations. These are at the heart of his philosophy and are what makes TQM so powerful. Deming was particularly concerned with employee motivation and the importance of pride, joy and job satisfaction to the delivery of quality goods and services. In this book he reiterates a major theme of his. He believed that many employee reward systems are contrary to systems thinking and hinder rather than help morale. He also disliked organizational cultures that are based on fear and believed that these are destructive to the organization and to the individual.

Joseph Juran

Born in 1904, Dr Joseph Juran, along with Deming, is the other main veteran pioneer of the quality revolution. Like Deming, he was until recently more highly regarded in Japan than in his native United States. In 1981 the Emperor of Japan awarded him the prestigious Second Order of the Sacred Treasure, the highest order awarded to non-Japanese.

Juran is the author and editor of a number of books, including *Juran's Quality Control Handbook, Juran on Planning for Quality* and *Juran on Leadership for Quality.* In the first edition of the *Quality Control Handbook,* published in the 1950s, he used his now famous words 'there is gold in the mine!'

He is probably most renowned for coining the phrase 'fitness for use or purpose'. The importance of this idea is that a product or service can meet its specification and yet not be fit for its purpose. The specification may be faulty or it may not accord with what the customer wants. Meeting specifications may be a necessary condition of quality in most instances but it is not a sufficient one.

The 80/20 rule

Juran was the first management guru to deal with the broader management issues of quality. He believed, like Deming, that most quality problems are traceable back to management decisions. He believed that poor quality is usually the result of poor management. Using the Pareto principle, Juran believed that 80 per cent of an organization's quality problems are the result of management-controllable defects. Putting the systems right often means putting the quality right It follows from this that 80 per cent of problems lie with management, as they have control of 80 per cent of the systems in an organization.

Strategic quality management

Juran believed that quality does not just happen, it has to be planned. To assist managers in planning quality, Juran developed an approach that he called Strategic Quality Management. SQM is a three-part process based on staff at different levels making their own unique contributions to quality improvement. Senior management has the strategic view of the organization, middle managers take an operational view of quality, while the workforce is responsible for quality control.

This is an idea that has a ready application to education. Senior managers and governors take the lead in strategic quality management by setting out the institution's vision, priorities and policies. Middle managers—heads of department/faculty—take responsibility for quality assurance, which involves them in coordinating information from their teams, systematically checking on effectiveness, and transmitting the results of monitoring both to teaching teams and to senior management.

Teachers operating in teams exercise quality control. They can design the characteristics and standards of programmes of study so that they conform to the needs of their learners.

The Juran Institute, which provides consultancy based on Juran's principles, preaches a project-by-project team-solving approach to quality planning. Quality planning leads to quality improvement and only has meaning in practical application. Juran has said that 'All quality improvement takes place project by project and in no other way' (Juran, 1989).

Juran developed a road map to quality planning, which consists of the following steps:

1. Identify who are the customers.
2. Determine the needs of those customers.
3. Translate those needs into our language.
4. Develop a product that can respond to those needs.
5. Optimize the product features so as to meet our needs as well as customer needs.
6. Develop a process that is able to produce the product.
7. Optimize the process.
8. Prove that the process can produce the product under operating conditions.
9. Transfer the process to operations.

Juran in his writing believed that there are no shortcuts to quality. He was sceptical of companies that applied the Japanese model of quality circles. He doubted their effectiveness in the West. Rather he believed that the majority of quality problems are the fault of poor management, rather than poor craftsmanship. He did not believe that employees were responsible, in the main, for poor quality. In general, he believed that management-controllable defects account for over 80 per cent of all quality problems.

Philip Crosby—*Quality is Free*

Philip Crosby was a graduate of the Western Reserve University in the United States. After naval service in the Korean War he held a variety of quality control jobs, the first being as a line inspector. He was a quality manager on the first Pershing missile programme and later joined ITT, where for 14 years he was Corporate Vice President and Director of Quality. In 1979 Crosby published his most famous book

Quality is Free. Following its success he set up Philip Crosby Associates Incorporated and The Quality College in Florida where he taught organizations how to manage and improve quality. Crosby published *Quality Without Tears* in 1984 as well as a string of other management books.

Crosby's name is associated with two very appealing and powerful ideas. The first is that *quality is free.* This very powerful idea is premised on the idea that savings from quality improvement programmes pay for themselves.

The second idea most associated with him is the notion that errors, failures, waste and delay—all the 'unquality things'—can be totally eliminated if the organization has the will. This is his controversial notion of *zero defects.*

Both ideas are very appealing in education. The idea that quality improvement can pay for itself and can lead to an elimination of failure, especially if this could mean pupil and student failure, is one that few institutions can ignore. Crosby, like all the other 'gurus', is at great pains to emphasize that the route to zero defects is a difficult although achievable one. As he has written, 'Quality is free. It's not a gift, but it is free. What costs money are all the unquality things—all the actions that involve not doing jobs right the first time'.

Crosby's improvement programme is one of the most practical and detailed guides available. Unlike Deming's more philosophical approach, Crosby's model can be followed as a plan of action. Crosby was a popularist writer and his approach is essentially practical. In *Quality Is Free* Crosby outlines his view that a systematic drive for quality will pay for itself. He says that it is non-conformance problems that lead to scrap, rework, refits, tests and inspection. These are the costs of quality. Savings come from doing things right. In education, parallels can be seen with the cost and effort of retake examinations and the generally low success rate associated with them.

Zero defects

Zero defects are Crosby's major, but controversial, contribution to thinking on quality. It is a powerful idea. It is the commitment to success and the elimination of failure. It involves putting systems in place that ensure that things are always done in the right way first time and every time. Crosby argues that aiming for zero defects, in a business context, will increase profits by saving on costs. The impact of quality on the bottom line is what makes Crosby's model so attractive.

Crosby does not believe in statistically acceptable levels of quality. For Crosby there is only one standard, and that is perfection. His is a pure prevention model, and he believes that it is possible to deliver error-remove errors the closer that one gets to zero defects. However, not all commentators agree with this thesis. For example, Joseph Juran, a critic of Crosby, argues that, after a certain point, conforming to requirements can actually impose additional costs and as a result he does not believe that zero defects is an attainable goal.

Zero defects is a concept which is harder to apply to services than to manufacturing. In services zero defects are desirable, but it is difficult to guarantee fault-free service with so many opportunities for human error. Nevertheless, zero defects are an important service-industry goal. It is an idea that ought to have an important echo in education. At its simplest and most powerful it would mean that all pupils and students would make a success of their education and fulfil their potential. The task of quality improvement in education would be building the systems and structures to ensure that this happened. Much stands in the way of zero defects, particularly norm-referenced examinations which make the goal of zero defects effects an impossibility and a widely held view that standards can only be maintained by a high degree of failure.

Crosby's improvement programme

The essential first step in a quality programme, according to Crosby, is *Management Commitment.* This is crucial to the success of any quality initiative. The quality initiative must be sanctioned and led by senior management. Crosby suggests that this commitment be communicated in a quality policy statement, which needs to be short, clear and accessible. The second step builds on the commitment with the setting up of a *Quality Improvement Team.* Since every function within the organization is a potential contributor to defects and quality failures, it follows that every part of the organization must participate in the improvement effort. The Quality Improvement Team has the task of setting and directing the programme that will be implemented across the organization. This team does not do all the quality work. The task of implementing improvements is the responsibility of teams within individual departments. The plan that the Quality Improvement Team draws up must be accepted and endorsed by senior management.

An important task of the Quality Improvement Team is to decide how to specify quality failure and improvement, and this leads into Step 3, *Quality Measurement.* It is important to be able to measure the current

and potential non-conformance in such a manner that it permits objective evaluation and corrective action. The types of measurement vary between manufacturing and service organizations and, typically, they include data from inspection and test reports, statistical data, and feedback data from customers. A major contributor to quality measurement is provided in Step 4 by quantifying *The Cost of Quality.* The cost of quality consists of such things as the cost of things going wrong, rework, scrap, having to do things again, inspection, and testing. It is important to be able to identify the costs of quality and to put a value on them.

Step 5 in Crosby's steps to quality is the building of *Quality Awareness.* It is necessary to raise the awareness of everyone within the organization of the costs of quality and the need to implement a quality improvement programme. This requires regular meetings between management and employees to discuss specific problems and means of overcoming them. Information about the quality programme needs to be communicated. Crosby does not go for the big-bang approach to introducing quality. He argues that quality awareness should be low key and linked to a constant stream of events. Once awareness has been raised it is possible to move on to Step 6, *Corrective Action.* Supervisors need to work with staff to eliminate poor quality. A systematic methodology is required to deal with problems. Crosby suggests setting up a series of task teams with a carefully constructed agenda for action. Reports of the task teams should be fed up the chain of command in a regular series of meetings. To decide which problem to tackle first he suggests applying the Pareto rule. This suggests that 20 per cent of the processes cause 80 per cent of the problems. The biggest problem needs to be tackled first, followed by the next most important and so on. One way of highlighting the improvement process is through Step 7, *Zero Defects Planning.* He argues that a zero defects programme should be introduced and led by the Quality Improvement Team, which is also responsible for its implementation. Crosby argues that all staff should sign a formal contract or pledge to work towards zero defects.

Step 8 emphasizes the need for *Supervisor Training.* It is important that all managers understand their role in the improvement process and this is carried out through a formal training programme. This is particularly important for staff carrying out crucial middle-management roles. Step 9 is the holding of a *Zero Defects Day.* This is a day-long event that establishes the idea of zero defects and informs employees that there has been a change. This is essentially a jamboree to highlight and celebrate the work being carried out on quality and to emphasize

the management's commitment to it. It has a more serious side, which is staff development.

Step 10 is *Goal Setting.* Once the pledges to work towards zero defects have been made and the idea has been launched on Zero Defects Day, it is important that individual action plans are completed. The goals which teams set themselves must be specific and measurable. Goal-setting leads naturally into Step 11, *Error-Cause Removal.* There needs to be a means by which individual employees can communicate to management the situations that make the pledges difficult to implement. This is best achieved by designing a standard form that goes to the appropriate line manager. All such forms must receive a reply within a particular time period.

It is important to appreciate those who participate in the improvement exercises, Crosby says in his twelfth step, *Recognition.* People, he argues, do not work for money, and once their salary is established something more important takes over. What staff need is recognition of their achievement and contribution. Crosby argues that the recognition needs to be linked to previously set goals. The awards can be prizes or certificates. Recognition, not money, is what is important.

Crosby's step 13 is the establishment of *Quality Councils.* This is an institutional structure also favoured by Juran. It is important to bring the quality professionals together to decide how problems can best be tackled. Inspectors and quality controllers need a consistent and professional approach to their work. Part of the role of the Quality Council is to monitor the effectiveness of the programme and to ensure that the improvement process continues—which is emphasized in Step 14, *Do It Over Again.* The quality programme never ends. Once goals are reached, the programme needs to start over again.

Tom Peters

Tom Peters is another US national. He is primarily a management theorist whose views on what makes successful organizations have considerable relevance to quality. Peters graduated in engineering and business and spent the early part of his career, like Crosby, in the United States Navy. He was a principal at the consultants McKinsey and Co when he began researching his most famous book *In Search of Excellence,* written with Robert Waterman, which was published in 1982. In it they researched the secrets of the United States' most successful organizations. His second book, *A Passion for Excellence,* written with Nancy Austin, was published in 1985. He has subsequently

published a string of successful books, including *Thriving on Chaos* (1987) and *Liberation Management* (1992).

Peters on leadership

In *A Passion for Excellence* with co-author Nancy Austin, Peters identified leadership as being central to the quality improvement process. Importantly, they considered that the term 'management' should be discarded in favour of 'leadership'. For them the leader was to be a facilitator and the person with vision motivating the rest of the team. They championed hands-on leadership styles and characterized it with their famous *managing by walking about* (MBWA). Such leadership styles enable leaders to keep in touch with customers and staff and they believe that it leads to innovative and creative ideas. Peters and Austin call MBWA the technology of the obvious and believe that the effective leader, by practising MBWA, is able to pursue the following important characteristics:

- listening to staff, which shows that he/she cares;
- teaching and transmitting values;
- facilitating and giving on-the-spot help and advice.

Peters is well known for his views on customer orientation. In *Thriving On Chaos* he describes 12 attributes, or traits, of the quality revolution that all organizations need to pursue. These traits are:

- A management obsession with quality—Peters stresses the importance of practical action to back up the emotional commitment to quality, e.g. halving the number of reworks, never walking past shoddy goods.
- Passionate systems—for Peters, failure is invariably due to passion without system, or system without passion. He believes that both system and passion are necessary.
- Measurement of quality—this is an essential element; it should begin at the outset of any quality programme and should be carried out by the participants themselves.
- Quality is rewarded—Peters believes that financial incentives can boost quality improvement.
- Everyone is trained for quality—Peters believes that every person in an organization should be extensively trained. Training should

include cause and effect analysis, statistical process control, and teamwork.
- Multi-function teams—quality circles, cross-functional teams or corrective action teams should be introduced.
- Small is beautiful—Peters does not believe that there is any such thing as a small improvement. All improvements are significant.
- Create endless 'Hawthorne effects'—he believes in getting things going with new goals, new themes and new events.
- Parallel organizational structure devoted to quality improvement—this he describes as the creation of shadow quality teams and emphasizes that it is a route through which hourly paid workers can progress.
- Everyone is involved—suppliers, distributors and customers are all part of the organization's quality process. Joint improvement teams may be formed.
- When quality goes up, costs go down—quality improvement is the primary source of cost reduction.
- Quality improvement is a never-ending journey—all quality is relative. Each day all products or services are either getting relatively better or worse, but never stand still.

Kaoru Ishikawa

Kaoru Ishikawa was born in 1915. He was a graduate in engineering from Tokyo University. He obtained his doctorate in engineering and became Professor at Tokyo University in 1960. He was awarded the Deming Prize for his writings on total quality control. His most famous book *What is Total*

Quality Control? The Japanese Way was published in 1985. He died in 1989. He is most famous for his work on quality circles and was a pioneer of the Quality Circle movement in Japan in the early 1960s. He is also well known for his statistical techniques, including the fishbone or Ishikawa diagrams (see Chapter 10).

Quality circles

One major characteristic of Japanese company-wide quality control is the quality circle. The quality circle is probably the most well-known Japanese contribution to quality management. The quality circle movement, associated with Ishikawa, started in 1962 in the Nippon Telegraph and Telephone Public Corporation. It spread to banks and

retailing and has been exported worldwide. Success in the West has not been so extensive as in Japan,

however, although even there it has been shown to have limitations. In Japan a quality circle is typically a voluntary group of usually five to a dozen staff all from the same workshop. They meet regularly and are led by a foreman, team leader or one of the workers. Their aim is to contribute to the improvement and development of the enterprise and to build a happy workforce. Quality circles are about using human capabilities to the full. These aims are broader than is consistent with a narrow definition of quality as often used in the West.

Typically, members of quality circles master statistical quality control and related methods and utilize them to achieve significant results in quality improvement, cost reduction, productivity and safety. They are all taught the seven tools of quality control—Pareto charts, cause and effect diagrams, stratification, check sheets, histograms, scatter diagrams and Shewhart's control charts and graphs. All members of the circle engage in self and team development. They receive no direct financial reward for any improvements they make.

Even in Japan many quality circles have foundered. This is usually because of lack of management interest or the opposite—excessive intervention. However, many more have been successful. Many commentators, including Philip Crosby, have warned against the fashion for quality circles as a cure-all for poor staff motivation or inadequate quality and productivity in either manufacturing or service industries. Joseph Juran has gone further and expressed doubts on their effectiveness in the West. He believes that the industrial culture is different. In western approaches to quality improvement the quality circle is replaced by teamwork.

5
Kitemarks

'The customer needs the assurance and confidence that the supplier has the ability to provide the product or service consistently to the defined quality.'

British Standards Institution

External quality standards have an important role to play in helping organizations develop a TQM culture. They are not compulsory and, while many organizations prefer not to be burdened with meeting someone else's standard, nevertheless they are worth considering when developing a quality programme. They are very useful for purposes of self-assessment and as a framework for auditing quality processes.

ISO9000

The ISO9000 series is the world's major quality standard with some 350,000 users worldwide. It was first published in the UK in 1979 under the title 'Quality Systems' and was known until the mid-1990s in the UK as BS5750. It had its origins in the United Kingdom in quality procedures required by the Ministry of Defence and NATO in their roles as procurement agencies. These AQAPs (Allied Quality Assurance Procedures) developed into an international standard in the 1980s.

ISO9000 is concerned with *quality management,* defined as the means by which an organization employs its resources to meet its customer and regulatory requirements and the mechanisms it employs to make continuous improvements. From December 2003 a new set of ISO9000 standards are in operation. These are known as ISO9000: 2000.

The philosophy behind the ISO9000 series

The philosophy behind the ISO9000 series is that quality should be built into the systems and procedures of the organization, where the emphasis is on prevention rather than cure. To be able to meet the demands of ISO9000 an organization has to build quality in at each stage, from design through to delivery, assessment and evaluation, through a formal and rigorous management system to ensure conformity of the product or service to its specification. The aim is to produce a consistent level of product or service that is fit for purpose.

ISO9000 requires that all the activities necessary to produce the product or service be documented if the quality system is to conform to the standard. An educational establishment would, for example, need to document all the activity concerned with the delivery of its programmes, including selection, interviewing, induction, discipline, assessment, records of achievement, advice and guidance, etc. ISO9000 places a considerable discipline on those intending to use it. Putting a system in place is not easy or straightforward. It involves a large investment of resources and staff time. Everybody in the institution needs to understand its implications and to work to the systems and follow the procedures that have been put in place. Many teachers might consider the emphasis on following detailed written instructions stifling to initiative and excessively bureaucratic, although for or others they can provide useful guidance and direction.

Applying ISO9000:2000 to education

The previous ISO9000 series gave problems to educational institutions because of the manufacturing origins of its language. It needed considerable translation for the educational context. It was based on the notion of conformity of product that was difficult to translate in an educational setting, especially if the product was defined as the student. However, ISO9000:2000 is now about process and is far more accessible to service organizations and to educational establishments.

The ISO9000:2000 series is based on eight principles that can be used by the management team of an organization to improve performance. These principles are:

- *Customer focus*—this is the notion common to all quality processes that quality consists of meeting and exceeding the expectations of customers. Applying this principle could entail an organization

researching customer needs and expectations and measuring how well they are performing against these expectations. In the educational context the customers could be the students, their parents, their future employers or other educational establishments.

- *Leadership*—a leader's ability to establish a vision and purpose is the key to a successful organization. Leaders inspire others, provide them with the resources to do their job, and ensure that the needs of all parties, staff, customers, the local communities and others are identified and met. Leadership has been shown to be the key variable in successful schools. The emphasis on leadership here works well and conforms to the research findings that are being generated on school improvement.
- *Involvement of people*—organizations need their people to use their abilities for the benefit of the organization. Ensuring that this happens is important for innovation and creativity. Without staff—both teachers and support staff—educational establishments could not function. Planning the needs of staff and ensuring that their talents are used to the full are key indicators of success.
- *Process approach*—this is about the efficiency and effectiveness of the organization's core activities and the importance of developing a systematic approach to their management. The establishment of clear roles and responsibilities and identifying key activities are some of the issues that are important in a process approach. The systematic management of the teaching and learning process is what is required to conform to the requirements of the process principle.
- *Systems approach to management*—this is about recognizing the interrelatedness of processes and aligning them to achieve the best results. It is about ensuring that there are clear systems in place and establishing clear targets and goals. Having clear indicators of performance and ensuring that there are management processes to meet those targets are key aspects of educational management.
- *Continuous improvement*—continuous improvement is the objective of all quality systems. It is about ensuring that people have the training and skills required to make improvements and ensures that there is an organization-wide approach to the improvement of performance. Schools and other educational establishments need to be as concerned with continuous improvement as any other organization. One of the key factors in this is the importance of staff training and development and the need to ensure that there is systematic approach to the development of staff and an adequate investment in their training.

- *Factual approach to decision making*—this requires that decisions be made on the basis of information and data. It ensures that data is available and decisions are informed by available information. Data on students and their performance and on such things as the value added being given to them through the educational process is clearly important to good decision making in education
- *Mutually beneficial supplier relationships*—any organization is in a mutually beneficial partnership with its suppliers that can create value for both parties. It is about clear and open communication, undertaking joint projects and pooling expertise. The importance of supplier relationships for educational establishments is clear. Senior schools have relationships with their feeder schools and universities have similar relationships in the school systems. Relationships with community groups also need to be considered under this heading.

Does ISO9000 guarantee quality?

ISO9000 only sets the standard for the quality system. It does not set the standards that the institution or its learners should be achieving. The staff of the institution together with its customers and those to whom it is accountable are the arbitrators of standards of teaching and learning. What ISO9000 can do is to assure that there are systems in place to deliver those standards once they have been decided.

ISO9000 cannot guarantee consistency of standards between institutions. This is an important consideration because so much attention is given in British and other educational systems to the question of the consistency of standards between institutions.

Investors in People UK

Investors in People (IIP) was launched in October 1991 and has been substantially revised in recent years. It is different from the ISO9000 series in that it is a standard for human resource development and training, and as such is only one element in a TQM programme. Its other drawback is that it is a UK standard without international parallels, and its lack of international recognition may deter some organizations from pursuing it.

Investors in People is based on the experience of successful organizations in the UK that have recognized that a skilled and motivated workforce is crucial to their success. IIP provides a methodology for developing staff in ways that assist in the achievement

of organization goals. The essential principles that have to be satisfied for an organization to become an Investor in People are:

- *Commitment*—an Investor in People is fully committed to developing its people in order to achieve its aims and objectives.
- *Planning*—an Investor in People is clear about its aims and objectives and what its people need to do to achieve them.
- *Action*—an Investor in People develops its people effectively effectively in order to improve its performance.
- *Evaluation*—an Investor of People understands the impact of its investment in people on its performance.

As with other quality standards, evidence is required by the external auditors who undertake the audit. It is a more flexible and less paper-based audit than that undertaken for ISO9000. The auditors gather their evidence largely by holding discussions with members of staff. The institution will need to demonstrate the spirit of IIP, not just the existence of a formal system to guarantee it.

Investors in People was developed for business but it is readily adaptable to education. A number of schools, colleges and universities have seen the possibilities in it for their quality development initiatives. The process is one that appeals to many educational institutions who already have well-developed processes for staff development review.

Like ISO9000, Investors in People does not guarantee quality. However, it can be an important indication that the institution is developing a systematic management process to improve the effectiveness of its most valuable resource—its staff.

The Deming Prize (Japan)

The Deming Prize is the Japanese national prize for quality and it is not available internationally. The Union of Japanese Scientists and Engineers established it in 1950 to commemorate W Edwards Deming's contribution in Japan to total quality control.

Winning the Deming prize for mastering total quality control has been an obsession for many of the big names in Japanese business. There are a number of prize categories. Prizes are awarded to a large corporation, a division, a factory and to medium and small companies. There is also a Deming prize for individuals who have made an outstanding contribution to statistical theory. In addition, there is the Japanese Quality Control Medal established in 1969, for which

companies can compete five years after winning the Deming Prize. To qualify for a prize the top management of a company must make the application. Outside experts then carry out an exhaustive quality audit to determine the winner. Many of the household names of Japanese industry have won it, including Toshiba, Toyota and Komatsu.

Interestingly, while the prize criteria are exceptionally demanding, they do not require applicants to conform to a particular model of quality. Rather the applicants are expected to understand their own situation, establish their own themes and objectives and set their own improvement and transformational goals. The results and the processes used are scrutinized by the examiners, as are the future prospects of the organization. The examiners evaluate whether the applicant's processes were commensurate with their situation.

The Malcolm Baldrige National Quality Award (United States)

The Malcolm Baldrige National Quality Award is the US equivalent of the prestigious Japanese Deming Prize. The award was established by the US Congress in 1987 and was named in honour of former Secretary of State Malcolm Baldrige who was a keen proponent of quality management as the key to national prosperity. The US Commerce Department's National Institute of Standards and Technology manages the award.

The Malcolm Baldrige award is not a standard like ISO9000. Rather it is an annual competition. The award is designed to recognize US companies that excel in quality achievement and quality management. The awards are given annually in the following categories: manufacturing, service, and small businesses. In 1999, additional awards were introduced in health care and education. The award concentrates on:

- results and service;
- the involvement of a variety of trade and professional groups;
- innovative approaches to quality;
- human resources and a customer focus;
- the importance of sharing information.

The Malcolm Baldrige criteria fit extremely well with the Deming philosophy of quality. There is a strong emphasis on the non-procedural aspects of quality such as leadership, human resource management,

including employee well-being and morale, and customer satisfaction. Unlike ISO9000, which is about whether an organization complies with its own quality system, the Malcolm Baldridge award focuses on results and continuous improvement. Applications are examined against criteria that are regularly updated. Seven categories make up the award criteria. These are:

- *Leadership*—examines how senior executives guide the organization and how the organizations addresses its responsibilities to the public and practises good citizenship.
- *Strategic planning*—examines how the organization sets strategic directions and how it determines key action plans.
- *Customer and market focus*—examines how the organization determines requirements and expectations of customers and markets.
- *Information and analysis*—examines the management, effective use, and analysis of data and information to support key organization processes and the organization's performance management system.
- *Human resource focus*—examines how the organization enables its workforce to develop its full potential and how the workforce is aligned with the organization's objectives.
- *Process management*—examines aspects of how key production/ delivery and support processes are designed, managed and improved.
- *Business results*—examines the organization's performance and improvement in its key business areas: customer satisfaction, financial and market place performance, human resources, supplier and partner performance, and organizational performance. The category also examines how organizations perform relative to competitors.

The European Quality Award

The Presidents of 14 leading European companies in 1988 launched the European Foundation for Quality Management (EFQM). It is now made up of some 170 companies whose aim is to stimulate and assist European companies in their development of total quality. The European Quality Award was launched during the EQFM's 1991 meeting in Paris. The aim of the EFQM and of the European Quality Award is specifically geared to encourage the development of TQM.

The award aims to recognize organizations that are paying exceptional attention to total quality, and to encourage others to follow their example. The European Quality Award is not a standard but a

competition award like the Japanese Deming Prize and the US Malcolm Baldrige Award. It is a single annual award presented to the most successful exponent of TQM in Western Europe and in addition there are a number of European Quality Prizes for companies who have demonstrated excellence in their management of quality. The criteria for the award are distinctively European and it is designed as an excellence model for companies regardless of size and type of business. The focus of the European Quality Award is 'are you trying to do the right things?' It places more emphasis than Baldrige on the organization's impact on society, resource utilization and on business results.

An organization that seeks to gain the award will be assessed on its results and improved performance achieved under the following headings:

- customer satisfaction;
- employee satisfaction;
- business performance;
- impact on society.

There are eight specific criteria and their relative values within the overall award are:

- *Customer satisfaction*—the perceptions of external customers, direct and indirect, of the company and of its products and services (20%).
- *People*—the management of the company's people and the people's feelings about the company (18%).
- *Business results*—the company's achievement in relation to its planned business performance (15%).
- *Processes*—the management of all the value-added activities within the company (14%).
- *Leadership*—the behaviour of all managers in transforming the company towards Total Quality (10%).
- *Resources*—the management, utilization and preservation of financial, information and technological resources (9%).
- *Policy and strategy*—the company's vision, values and direction, and the ways in which it achieves them (8%).
- *Impact on society*—the perceptions of the community at large, of the company. Views of the company's approach to the quality of life, to the environment and to the need for preservation of global resources are included (6%).

As the award is relatively new it is still too early to assess its impact, but the intention is to provide an award in the European Union of comparable status with the Japanese Deming Prize and the US Baldrige Award. The problem with it and other awards is that with only one winner annually it is likely that its impact will be limited to large corporations. The aim of the award is clearly to encourage the imitation of excellence exhibited by the award's winners. The European Quality Award competition can be entered by educational institutions whose education or training provisions have a significant European dimension.

6
Organization

'Successful institutions of the future must be as responsive and fluid as the world around them.'

Edward Sallis

Organizations are not static entities. They exist only so long as they fulfil a useful purpose. They and their environment are in a constant state of change and, to adopt a biological analogy, all institutions have a life cycle.

The organizational life or developmental cycle has four main stages. These are formation, growth, maturity, and lastly a stage that can lead either to decline and decay or to renewal and revitalization. The developmental cycle is the same for educational institutions as for any other organization, especially now that education operates in a more deregulated and market environment. Each stage in the life cycle has its own special challenges, and a failure to meet them can lead to disaster. At each stage an institution must change, adapt and develop. TQM, with its powerful ingredients of long-term strategic planning and the involvement of staff in continuous improvement, provides the means of facing up to the challenges at each stage.

Institutional life-cycle theory

The first stage in the cycle is the birth and formation of the institution. A newly established institution requires a strategy to gain recognition and acceptance. It must establish its niche in the market and find a clientele. The new organization must build a client base and ensure that it is aware of and is in tune with consumer needs, even if it has created those needs in the first place. The foundation of a new organization is sometimes described as the entrepreneurial phase because the founders

are often visionaries who, through personal effort and risk taking, ensure the institution's future.

If the new organization succeeds it passes into the growth and development stage where it will face new and novel challenges. It has to ensure that it can continue to generate the excitement and optimism that is a strong feature of the formation stage. The main problem, however, in the growth stage is how to cope with the pressures built up by the increased demands for its services. Management systems failure, inability to delegate, and the appointment of staff who do not share the ethos of the institution are usual causes of early failure. The personal service offered by the young dynamic organization has to be translated into dealing with an enlarged clientele. This involves communicating the ethos to new staff and will involve considerable induction and in-service training.

There is a danger that, while growth requires the establishing of rules and procedures, this can quickly degenerate into a needless bureaucracy that can stifle the original vision and mission of the organization. There is a risk at this stage that the organization will move from being market-led to being product driven. The maturity stage is potentially the most dangerous stage of an organization's development. It is the stage in which most educational institutions find themselves. Too many mature institutions cease to be proactive and instead only react to external events. They cease to innovate and attempt to mould customers into their ways of doing things. The commercial world is littered with the memories of once famous household names. The roll call of the demise of the famous names of the British motorcar industry bears witness to this. Austin, Morris, MG, Riley, Triumph, Hillman, Sunbeam and others were all innovators in their day. The difference between them and Nissan, Honda, Toyota, BMW and Volkswagen is one of management commitment to listen to the market and to develop products that exceed the consumers' expectations. Failure to adapt can swiftly lead to decline and failure. In the new educational marketplace the same fate can befall educational institutions.

However, the maturity stage can also be one of renewal if the message of total quality is adopted and the institution develops strategies for adaptation and finds ways of keeping close to its customers. It can be a dynamic phase where the experience of the institution can be harnessed for its further development. Maintaining the dynamism and entrepreneurial flair is of major importance when there are rapid changes in the external environment. The institution must periodically reassess its aims and continually evaluate the activities

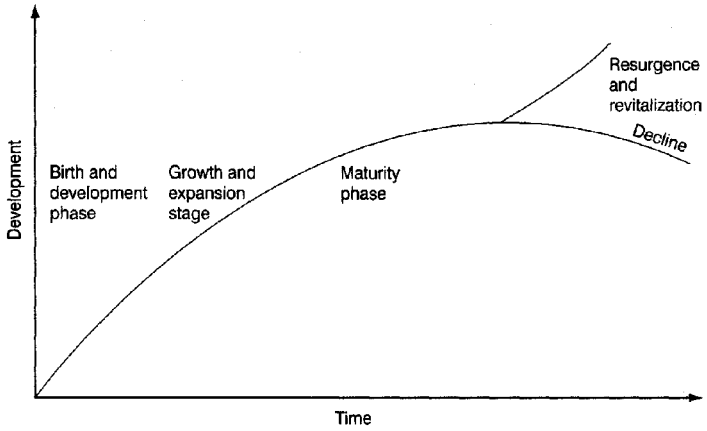

Figure 6.1 *Phases of institutional development*

critical to the institution's continual success. In the life cycle of organizations decline and decay are not inevitable, but the periodic process of revitalization needs to be a conscious exercise.

TQM organizations

Institutions with traditional ways of working are finding it increasingly difficult to cope with the pressure of change. Rigid boundaries, barriers and outmoded attitudes usually characterize such traditional institutions. Their features often include a lack of a common mission, overbearing hierarchies, and an over-reliance on bureaucratic procedures. Such organizations have not developed a customer focus and their pupils and students are more often than not seen as liabilities, not assets. Improvements, when they are attempted, usually have as their goal reducing costs. What TQM offers is the opportunity for institutions to adopt a different outlook, diametrically opposed to the traditional model. TQM organizations will have integrated quality into their structure and recognize that quality involves everyone's commitment and contribution at every level. To achieve this a considerable investment needs to be made in people as they are the keys to quality, and hence to the institution's future.

If a school or college aspires to be a total quality institution it must act like one. It must innovate and drive ahead to achieve the vision contained in its mission statement. It must recognize that quality will

always provide an edge in the market. Most important, it must carry the message to its staff and ensure that they are partners in the process. The quality route is by now well trodden but just as hard. The driving force has to come from the top and the process has to be constantly nurtured and reinforced. Leadership is the key, but so is listening and learning. It is often the little things that provide the evidence of quality. Institutions that make the effort to get the details right also have the right approach to the major issues. In a world where so many services look superficially similar it is attention to detail that provides the competitive edge. Above all, in the words of Tom Peters, 'Ensure that quality is always defined in terms of the customer perceptions' (Peters, 1987).

Lean form, simple structure

There are no correct forms of organization for TQM, although some structures are more suitable than others. Structures need to be appropriate and facilitate the TQM process. The evidence suggests that, as TQM develops, much of the hierarchy is eliminated, and flatter structures with strong cross-institutional links take their place. The more appropriate organizational forms are simple, lean, and are built around strong teamwork. The development and strengthening of teamwork, so much a feature of TQM, reduces the need for much of the middle management controlling and scheduling function. In its place middle managers become the leaders and champions of quality, and take on the role of supporting teams and assisting their development. This new role for middle managers is important because teamwork can have a downside. Teams that are too autonomous may branch out in uncoordinated and ineffective ways. Teamwork needs to be structured within a simple but effective management system. It is important that teams understand the vision and the policies of the institution. This is one of the reasons why vision and leadership are so heavily emphasized in the TQM literature.

Organizations, from a TQM perspective, are systems designed to serve customers. In order to serve the customers all the parts and systems of the institution must dovetail. The success of any one unit of the organization affects the performance of the whole. The difference between a mature structure operating under TQM and the more usual organizational forms is that traditional organizations are structured around functions while TQM institutions are organized around processes. The idea is that the whole of a process should be under a single and simple chain of command. For example, are all the functions

QUALITY INSTITUTION	ORDINARY INSTITUTION
Customer focused	Focused on internal needs
Focus on preventing problems	Focus on detecting problems
Invests in people	Is not systematic in its approach to staff development
Has a strategy for quality	Lacks a strategic quality vision
Treats complaints as an opportunity to learn	Treats complaints as a nuisance
Has defined the quality characteristics for all areas of the organization	Is vague about quality standards
Has a quality policy and plan	Has no quality plan
Senior management is leading quality	The management role is seen as one of control
The improvement process involves everybody	Only the management team is involved
A Quality Facilitator leads the improvement process	There is no Quality Facilitator
People are seen to create quality – creativity is encouraged	Procedures and rules are all important
Is clear about roles and responsibilities	Is vague about roles and responsibilities
Has clear evaluation strategies	Has no systematic evaluation strategy
Sees quality as a means to improve customer satisfaction	Sees quality as a means to cut costs
Plans long term	Plans short term
Quality is seen as part of the culture	Quality is seen as another and troublesome initiative
Is developing quality in line with its own strategic imperatives	Is examining quality to meet the demands of external agencies
Has a distinctive mission	Has no distinctive mission

Figure 6.2 *The differences between a quality institution and an ordinary institution*

associated with pupil or student support and welfare integrated and under a single source of control?

Under TQM, structure follows process, and the following are necessary features of any quality organization:

- *Unit optimization*—every unit, programme, and department needs to operate efficiently and effectively. Each area needs to have clear, and preferably written, quality standards within which to operate.
- *Vertical alignment*—every member of staff needs to understand the strategy of the institution, and its direction and mission, although they may not need to know the detailed breakdown of objectives.
- *Horizontal alignment*—there should be a lack of competition between units/programmes/departments, and an understanding of the aims and requirements of other parts of the organization. Mechanisms need to be in place to deal effectively with any boundary problems.

A single command for each process—the key processes, whether they are curriculum, pastoral, or administrative—needs to be charted and organized so that each process is brought under a single chain of command. The charting process is best carried out from an analysis that starts by asking who the customers for a process are and continues by analysing their needs and the standards they should expect.

Structural reorganizations are not a requirement for TQM. Reorganizations may be useful and necessary to the quality improvement process, but equally they can divert attention from quality improvement and lead to institutional fatigue. There are plenty of examples in education where organizational restructuring has impeded quality development. There is usually only so much energy within a system. TQM usually provides as much change as the organization can reasonably cope with. Staff need some familiar signposts while adapting to new working methods. It is sensible to let structural change develop out of the process of improving quality, and so it is probably best to avoid organizational restructuring at the start of the TQM programme.

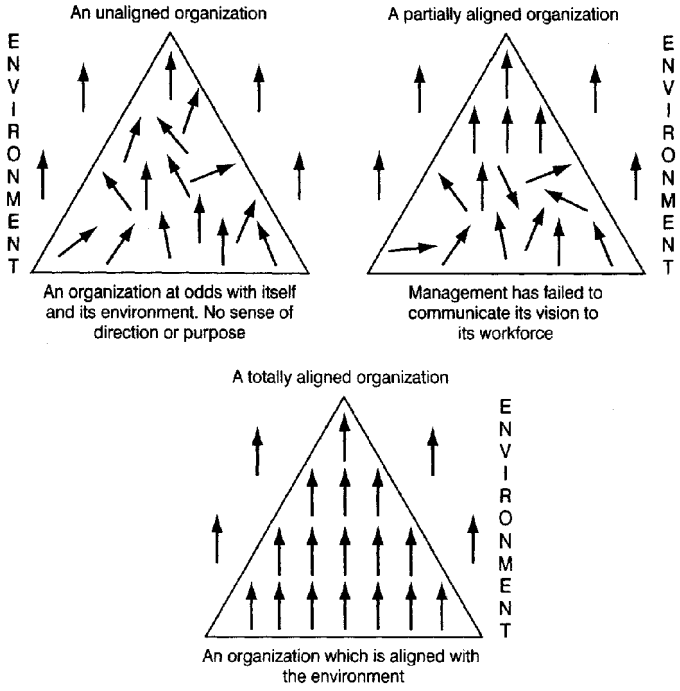

Figure 6.3 *Institutional alignment*

7
Leadership

> *'Commitment means much more than giving an annual speech on how important quality is to our school. It requires unending enthusiasm and devotion to quality improvement. It calls for an almost fanatic promotion of and attention to new ways to do things. It requires constant review of each and every action.'*
>
> *Stanley Spanbauer,* A Quality System for Education

Total quality is a passion and a way of life for those organizations that live its message. The question is how to generate the passion and the pride required to generate quality in education. Peters and Austin researched the characteristics of excellence for their book *A Passion for Excellence* (1986). Their research led them to the belief that what makes the difference is leadership. They argue strongly for a particular style of leadership to lead the quality revolution—a style to which they have given the acronym MBWA or 'management by walking about'. A passion for excellence cannot be communicated from behind the office desk. MBWA emphasizes both the visibility of leaders and their understanding and feeling for the front-line and the processes of the institution. This style of leadership is about communicating the vision and the values of the institution to others, and getting out among the staff and the customers and experiencing the service for themselves.

The educational leader

Peters and Austin gave specific consideration to educational leadership in a chapter entitled 'Excellence in School Leadership'. They see the educational leader as needing the following attributes:

- *Vision and symbols*—the headteacher or principal must communicate the institution's values to the staff, pupils and students and the wider community.
- *Management by walking about* is the required leadership style for any institution.
- For *the kids'*—this is their educational equivalent to 'close to the ' customer'. It ensures that the institution has a clear focus on its primary customers.
- *Autonomy, experimentation, and support for failure*—educational leaders must encourage innovation among their staff and be prepared for the failures that inevitably accompany innovation.
- *Create a sense of 'family'*—the leader needs to create a feeling of community among the institution's pupils, students, parents, teachers and support staff.
- *Sense of the whole, rhythm, passion, intensity, and enthusiasm*—these are the essential personal qualities required of the educational leader.

The significance of leadership for undertaking the transformation to TQM should not be underestimated. Without leadership at all levels of the institution the improvement process cannot be sustained. Commitment to quality has to be a prime role for any leader. It is for this reason that TQM is said to be a top-down process. It has been estimated that 80 per cent of quality initiatives fail in the first two years. The main reason for failure is lack of senior management backing and commitment. Quality improvement is too important to leave to the quality coordinator. To succeed in education TQM requires strong and purposeful leadership.

Typically, managers in non-TQM organizations spend 30 per cent of their time in dealing with systems failure, complaints and 'fire-fighting'. As TQM saves that time, managers have more time to lead, plan ahead, develop new ideas and work closely with customers.

Communicating a vision

Senior management must give the lead and provide vision and inspiration. In TQM organizations all managers have to be leaders and champions of the quality process. They need to communicate the mission and cascade it throughout the institution. Many managers, particularly middle managers, may find total quality difficult to accept and to implement. It involves a change in the management mind-set as

well as a change of role. It is a change from the 'I'm in charge' mentality to that of manager as supporter and leader of front-line staff. The function of leadership is to enhance the quality of learning and to support the staff who deliver it. While this sounds obvious, it is not always the way management functions functions are viewed. Traditional notions of status can lie uneasily with the total quality approach. TQM turns the traditional institution on its head and inverts the hierarchy of functions. It empowers the teachers and can provide them with greater scope for initiative. It is for this reason that it is often said of TQM institutions that they require less management and more leadership.

The role of the leader in developing a quality culture

What is the role of the leader in an institution undertaking a total quality initiative? No list of attributes says it all, but there are major functions that all leaders must undertake; these include:

- a vision for the institution;
- a clear commitment to quality improvement;
- an ability to communicate the quality message;
- meeting customer needs;
- ensuring that the voices of customers are heard;
- leading staff development;
- a no blame culture—most quality problems are the result of management and policies and not the failings of staff;
- leading innovation;
- ensuring that organizational structures have clearly defined responsibilities and provide the maximum delegation compatible with accountability;
- a commitment to the removal of artificial barriers, whether they be organizational or cultural;
- building effective effective teams;
- developing appropriate mechanisms for monitoring and evaluating success.

Empowering teachers

A key aspect of the leadership role in education is to empower teachers to give them the maximum opportunity to improve the learning of their

students. Stanley Spanbauer, the former President of Fox Valley Technical College in Wisconsin who took a lead in introducing TQM into vocational education in the United States, argues that:

> *in a quality-based approach, school leadership relies on the empowerment of teachers and others involved in the teaching/learning process. Teachers share in decision-making and assume greater responsibilities. They are given more power to act and greater autonomy in almost everything they do.*

Spanbauer, in his *A Quality System for Education* (1992), has put forward a plan for leadership to create a new educational environment. He argues that educational leaders should guide and assist others to develop a similar set of characteristics. This encourages shared responsibility and a style that will engender an interactive working environment. He visualizes a leadership style where leaders 'must walk and talk quality and understand that change happens by degree, not by decree'. Leaders have a pivotal role in guiding teachers and administrators to work for and in concert with their client groups. Spanbauer's model is one of leadership for empowerment. His conclusions are:

- Involve teachers and all staff in problem-solving activities, using basic scientific methods and the principles of statistical quality and process control.
- Ask them how they think about things and how projects can be handled rather than telling them how they will happen.
- Share as much management information as possible to help foster their commitment.
- Ask staff which systems and procedures are preventing them from delivering quality to their customers—students, parents, co-workers.
- Understand that the desire for meaningful improvement of teachers is not compatible with a top-down approach to management.
- Rejuvenate professional growth by moving responsibility and control for professional development directly to the teachers and technical workers.
- Implement systematic and continued communication among everyone involved in the school.
- Develop skills in conflict resolution, problem solving and negotiations while displaying greater tolerance for and appreciation of conflict.

- Be helpful without having all the answers and without being condescending.
- Provide education in quality concepts and subjects such as team building, process management, customer service, communication and leadership.
- Model, by personally exhibiting desired characteristics and spending time walking around, listening to teachers and other customers.
- Learn to be more like a coach and less like a boss.
- Provide autonomy and allow risk taking while being fair and compassionate.
- Engage in the delicate balancing act of ensuring quality to external customers (students, parents, taxpayers), while at the same time paying attention to the needs of internal customers (teachers, board members, and other co-workers).

8
Teamwork

> *'Teamwork throughout any organization is an essential component of the implementation of TQM for it builds up trust, improves communication and develops independence.'*
>
> *John S Oakland,* Total Quality Management

TQM organizations discover the benefits of having effective teams at all levels. In many sectors of education, teams have been developed as the basic unit for curriculum delivery. This provides educational institutions with a strong platform from which to build a TQM culture.

The importance of teamwork in education

However, the application of teamwork has often been limited to curriculum and management functions. To build an effective TQM culture, teamwork needs to be extended and must penetrate and permeate throughout the institution. It needs to be used in a wide range of decision-making and problem-solving situations. It must exist at all levels and across all functions and should include both academic and support staff.

A well-functioning institution should consist of a large number of overlapping teams. Teams should not consist exclusively of academic or support staff. Mixed teams of academic and non-academic support staff have an important role to play. Some teams will have a long life, while others take on short-term tasks.

Teams—the building blocks of quality

Teams have the advantage of involving the maximum number of people in the total quality process. It is useful to think of the TQM institution as a series of overlapping teams. The synergy required to make quality improvements comes from people working in harmony. Quality improvement is hard work, and this is best approached with the support of others. The teams have a number of important functions that include being:

- accountable f or the quality of learning;
- responsible for making quality improvements in their area of responsibility;
- a vehicle for monitoring, evaluating and improving quality;
- a conduit of information to management on the changes necessary to improve provision.

Quality improvement often takes place by a series of teams working on small incremental projects, each of which is designed to solve a problem, improve an existing process or design a new one. The brief for each is usually limited because it is easier to achieve success with small and manageable assignments. Small projects that fail do not jeopardize the credibility of the whole process. The idea is that a series of small successful projects can add up to something much larger. The projects need to have a common focus so that there is coherence and direction, with the end result benefiting a particular customer, either internal or external. Initially, the team needs to be tutored in taking methodical approaches and finding permanent and long-lasting solutions. Teams can make use of the TQM tools described in Chapter 10 for solving problems and making decisions.

Teamwork, however, does not just happen. As Philip Crosby has said, ‘being part of a team is not a natural human function; it is learned’ (1979). Training in teamwork and problem-solving skills is often necessary. The members of a team have to learn to work together. Teams are made up of individuals with different personalities, ideas, strengths, weaknesses, levels of enthusiasm and demands from their jobs. Too often in education, as elsewhere, we just expect teamwork to happen. A group of people work on the same programme and we call them a team. Usually, only the team leadership role is identified and that is often the only structure the team has. Teams, like people, need nurturing and

mentoring if they are to function well and give of their best. Their contribution has to be recognized and supported.

Team formation

Teamwork is based on mutual trust and established relationships. Only when a team has an identity and purpose can it operate effectively. Teams do not come ready formed. They have to go through a formation process that is critical to their ability to function. Teams need time to grow and mature, and it is generally recognized that teams go through a growth cycle. B W Tuckman has suggested a four-stage growth and maturity cycle of team development. His is a four-stage model:

1. forming;
2. storming;
3. norming;
4. performing;

to which can be added a fifth stage:

5. transforming.

Tuckman's first stage of group formation is all *about forming.* At this early stage the team is not a team, rather it is just a collection of individuals who have come together with a purpose but have little idea of how to work together or what are the rules and norms of engagement. There are a number of emotions associated with this stage, ranging from excitement, optimism, idealism, pride and anticipation through to fear, suspicion and anxiety. The main discussions will centre on philosophical issues concerned with concepts and abstractions, or on the organizational barriers to successful working.

At the forming stage a team may easily be distracted and can start dealing with matters outside its remit. Some of its members may be more concerned with stamping their authority on the group than in working on tasks. These patterns of behaviour are often seen as wasteful in time and effort. In fact, they are normal and necessary. They are essential processes that any team must go through. They correspond with the eighth and ninth of Deming's 14 points: drive out fear so that everyone may work effectively, and break down barriers between departments.

Teams will be helped in the formation stages if senior manages share their vision with them and provide them with clear guidelines. However, the managers' agenda must not be too detailed or it will stifle the inherent creativity of the team. The team's remit should give them direction and the knowledge that managers value their efforts.

Some teams never form, but if they do they proceed to a more difficult second stage known as *storming*. This can be an uncomfortable period. This is the stage when members realize the scale of the task ahead and may react negatively to its challenges.

Others will want to lay down personal agendas. Interpersonal hostilities may arise. It is usual to have arguments about the lack of progress being made and the time that is being wasted. Unless conflicts at this stage are properly handled, the team's very existence can easily be curtailed. The team leader must recognize the source of any conflict and diffuse it by assisting members to search for common ground. There is a positive side to the storming stage. It is the period when members begin to understand each other. Humour and patience are important qualities for a team leader at the storming stage, as are firmness and resolve. Again, two of Deming's 14 points are pertinent at the storming stage. They are points one and two: create constancy of purpose, and adopt the new philosophy.

The next stage is known as *norming*. It is when a team decides and develops its own methods of working. It is the process by which a team establishes its own rules or norms, and sorts out the roles that its members should play. If the rules are well defined and understood, the team has a good chance of functioning properly. A structured approach to training in teamwork can assist considerably at this stage.

Performing is Tuckman's fourth stage in the process of group formation. The team members have now worked out their differences and established their ways of working. The team will have built up an identity and established ownership of the processes it intends to use. It can now start the process of solving problems and improving processes. A fully mature team has been created that can work together and use the synergy of group working that are the real rewards of teamwork.

Deming's points five and seven of his 14 points exemplify the performing stage: improve constantly and forever the system of production and service, and institute leadership.

There is no typical timescale for a team to follow this process of development. Even the most experienced team members need a meeting or two to establish themselves as a new team, but if the members are new to teamwork the formation stages will take longer. It is important to

remember that even when the performing stage is reached all teams still have their ups and downs. Well-performing teams improve their performance over time and may reach a fifth stage, known as *transforming*. This is the stage when real improvements in quality are made. To continue in the transformational mode requires effective leadership and the use of excellent communication skills. The use of quality tools as described in Chapter 10 to solve problems is an excellent means of keeping teamwork fresh and invigorating for its members.

The effective team

While there is no one recipe for successful teams, the following points should be borne in mind:

- *A team needs its roles to be clearly defined,* It is important to know who is leading a team and who is facilitating it. The distinction between the leader and the facilitator is one that is often used in TQM. The leader's role is self-evident. It is the person who provides the mission and the drive to the team. The facilitator or quality consultant has a more novel role. The facilitator assists the team to make the best use of problem-solving and decision-making tools. The leader can carry out this role, but it is difficult for a person to combine both roles successfully in the same way that it is difficult both to chair a meeting and to take the minutes. Other important roles within the team include research, note taking and external relations.
- *Teams need clear purposes and goals.* A team needs to know where it is going and to have clear goals to achieve. It is important that the team has a say in its mission and sees it as being workable. The task it is set must be achievable or the mountain will be seen as too big to climb. It must also be relevant to the interests of its members. A good way to establish a sense of purpose is to have an initial session that does no more than establish the team's mission.
- *A team needs the basic resources to operate.* The basic resource needs are people, time, space and energy. The last point on energy is important, and is often neglected in discussions on teamwork, especially in the context of improvement teams. It is important to harness the energy of a team and not to over-extend its life.
- *A team needs to know its accountability and the limits of its authority.* Disillusionment results if deliberations are ignored or if

the team exceeds its authority or remit. A clear brief of the purpose of the team is necessary before a team begins its work.

- *A team needs a plan.* The plan will contain the terms of reference, the mission, perhaps a flowchart on the steps required to tackle a project, and the resources at the team's disposal.
- *A team needs a set of rules.* These should be simple and agreed by all members. They are an integral part of the norming stage. Their importance is to set high standards of behaviour and to keep the team on course.
- *A team needs to use the appropriate tools to tackle problems and to arrive at solutions.* The techniques described in Chapter 10, such as brainstorming, flowcharting, and force-field force-field analysis, are easy to adopt and can be very powerful problem-solving and decision-making tools.
- *A team needs to develop beneficial team behaviour.* Peter R Scholtes and his collaborators have argued that the keys to good teamwork are 'beneficial team behaviours'. These are things that ideally all team members should be able to do. They include the ability to:

  - initiate discussions;
  - seek information ormation and opinions;
  - suggest procedures for reaching goals;
  - clarify or elaborate on ideas;
  - summarize;
  - test for consensus;
  - act as gatekeepers;
  - direct conversational traffic, avoid simultaneous conversations, throttle dominant talkers, make room for reserved talkers, keep conversation from digressing;
  - compromise and be creative in resolving differences;
  - try to ease tensions in the group and work through difficult matters;
  - express the group's feelings and ask others to check that impression;
  - get the group to agree on standards;
  - refer to documentation and data;
  - praise and correct others with equal fairness, fairness, accept both praise and complaints.

Good communications are essential within the team to nurture these beneficial behaviours. Honesty and integrity are integral elements, as

are a willingness of members to share their feelings openly and not to indulge in hidden agendas. The team leader plays a crucial role here. It is the team leader's role to prevent the team from becoming bogged down, going round in circles, and from being dominated by one or two individuals.

Quality circles

For many people quality improvement is synonymous with quality circles. Quality circles are an essential feature of Japanese total quality control methods. They are a specialist project team. They are formed specifically for quality improvement. The extensive use of quality circles has been much greater in Japan than elsewhere, although they originated in the United States.

The Japanese TQC philosophy is essentially a blending of Deming's ideas of statistical process control with quality circles. Setsuo Mito in his book *The Honda Book of Management* says of them, 'TQC and QC circle activities have proved effective in raising worker morale and bringing about qualitative improvements in management wherever they are practised anywhere in the world'.

Quality circles are considered an essential part of quality processes in Japan, whereas they are not in the West. This may have something to do with their voluntary and after-hours image that does not fit easily into the Western industrial culture. In the West, teams and teamwork have been emphasized in place of quality circles. It is interesting that in one of the most influential of US practical guides to TQM, *The Team Handbook,* by Peter R Scholtes and contributors (1988), there are no references to quality circles. By contrast, Kaoru Ishikawa, who was one of the leading Japanese writers on quality, sees them as the basis of the quality improvement process.

In his *What Is Total Quality Control?* Ishikawa (1985) charts the development of the quality movement in Japan from its origins in the early 1950s through the growth of the quality circle movement. He describes quality circles as small groups based upon mutual trust, which voluntarily perform quality control activities within the workplace, and which use quality control methods and techniques.

The aim of quality circles, Ishikawa suggests, is to:

- contribute to the improvement and development of the enterprise;
- respect humanity and build a worthwhile-to-live, happy and bright workshop;

- exercise human capabilities fully, and eventually draw out infinite possibilities.

The only major difference between quality improvement teams and quality circles is voluntarism. It is a principle that Ishikawa believes to be of fundamental importance. He does not believe that quality circles should come under the command of a superior. The voluntarism principle prevents some circle members from becoming too dependent upon others. Strictly, formally designated groups such as work teams cannot be quality circles.

Whether there is a real difference between quality circles and teams, or whether it is merely a matter of semantics can be debated. What unites the two is of more importance. Both are based on the idea that there is a synergy to be gained by working together in a structured and self-directed way to improve the service being provided. Tim Atkinson (1990), writing about experiments with quality circles in further education colleges in the UK, also comes to much the same conclusions. He argues that where quality circles have been experimented with they have proved a beneficial means of staff development, particularly for support staff whose training has often been neglected. His conclusions are that quality circles work best among 'natural' work groups, and need to be supported with resources such as consultant time, facilitator time and places to meet. He concludes his study with the words:

> *Quality circles are not a panacea, but they can have dramatic results in terms of staff involvement, morale and identification with the aims of the organization. There are no disadvantages to introducing a quality circle programme, only varied levels of success.*

9
Knowledge

'We know much more than we can tell.'
Michael Polyani, The Tacit Dimension

One of the new ideas behind improving quality is the systematic management of knowledge. Knowledge management is a response to the explosion in information and the realization that knowledge is, together with quality, a key driver behind organizational success. The problem is not how to find information, but to be able to successfully manage it. As we have seen in Chapter 4, knowledge management was a theme of W Edwards Deming in his last book, *The New Economics* (1974). Deming believed that all organizations should understand their knowledge sources, manage on the basis of rational data and make decisions based on all the available information.

What is knowledge management?

Knowledge management is a subject that is still in its infancy and one where there is a considerable element of novelty. Nevertheless, interest in it is expanding at an enormous rate. Until fairly recently the term knowledge management had a comparatively narrow definition. When first used in the 1980s it was limited to describing artificial intelligence and the processes associated with the application of computing. By the time it started to be used in management literature in the early 1990s it had taken on a broader perspective, although with little real consensus about its meaning. This is still somewhat true, although there is now far more clarity and focus over its meaning.

The term knowledge management is applied *to everything from the* application of new technology to the much broader endeavours of trying to harness the intellectual capital of an organization.

Nevertheless, there is a consensus developing around the idea of knowledge management as being about *learning to know what we know*. This perspective is the one that is explored in this chapter. The idea is that knowing what we know and using it creatively and productively is the major source of economic value and competitive advantage at the disposal of any organization and is an idea that educational institutions need to take seriously.

However, organizations need to be clear that knowledge is more than information. More and better information does not mean that we are any more knowledgeable. In fact often the opposite can be the case. Information by itself can often lead to confusion and overload. Information overload is one of today's most serious problems both for individuals and for organizations. It is the productive use of information that is important. Knowledge is information that has been consciously processed and which has established meaning and value to those who use it.

A key to successful knowledge management is to exploit all forms of knowledge, both formal and informal. This can be achieved by developing an open knowledge-sharing culture and developing processes linked to appropriate technologies that facilitate the sharing and exploitation of all available information.

What happens if we ignore our knowledge base?

There are a number of unfortunate consequences of ignoring the need to properly harness both institutional and individual knowledge. Some of the consequences are listed below:

- loss of expertise;
- lost or missed opportunities;
- having to reinvent the wheel;
- loss of knowledge of best practices;
- loss of learning opportunities;
- damage to key stakeholder relationships;
- reductions in the quality of future future knowledge;
- damage to the organization's culture and social capital;
- the danger that other organizations will capitalize on ideas that were once their own because they could not harness their knowledge better.

What is knowledge?

In a sister book *Knowledge Management in Education,* which I co-authored with Gary Jones (2001), I have defined knowledge management as follows:

> *Knowledge is a key organizational asset that creates and adds value to the organization's products and services. It is composed of those insights and understandings that give meaning to the information and data at the organization's disposal. Knowledge originates in the minds of knowing subjects who evaluate and interpret it in the light of the framework provided by their experiences, values, culture, and learning. In the organizational context knowledge takes a range of explicit forms and formats, including processes, procedures and documents as well as more tacit forms, including values, beliefs, emotions, judgements, and prejudices. If properly applied, all forms of knowledge can provide the driving force for action.*

However, knowledge is not all of a type. It is a complex and multidimensional idea. To answer the question, 'how do we manage it best?', we need to understand some of the complexities surrounding it, and in particular to make a distinction between two important but different types of knowledge. These two types or concepts of knowledge are crucial to knowledge management and to using knowledge effectively in the organizational context.

The two concepts are generally known as *explicit* and *tacit knowledge.* Each requires different strategies to successfully harvest the knowledge they contain. Of the two concepts, explicit knowledge is what most people think of when we use the term knowledge. The reason for this is because explicit knowledge is easier to understand than tacit knowledge and it is easier to manage and manipulate.

Explicit knowledge

Explicit knowledge is precise and codifiable knowledge, as opposed to tacit knowledge, which is more intangible and personal. Explicit knowledge can easily be articulated and transmitted. It is the knowledge that can be most easily articulated and has its source in formal organizational documentation such as procedure manuals, mathematical equations, patents, procedures, technical reports, computer databases,

files, library books, archived documents, letters, organizational policies and financial statements. Educational establishments routinely collect huge amounts of this kind of information in the form of data about students, their background, their progress, their assessments and their examination results.

Harvesting formal and explicit knowledge is essential for the proper functioning of the organization. However, while there is purpose in collecting it, often there is little overall plan within the organization to fully exploit it. It is usually just collected for the task in hand. Often little thought is given as to how it can be exploited for the organization's own long-term benefit, even though the potential power of harnessing it can be enormous. It can be shared and used to create new and useful knowledge. After all, explicit knowledge is easy to communicate and so can be transferred relatively easily between individuals both within and without the organization. With modern technology it can be downloaded into databases and made accessible over company intranets and the Internet.

Using explicit knowledge effectively is one of the challenges of knowledge management. It is often a difficult and time-consuming task to find and locate particular pieces of information and in a form that is readily accessible. While an organization's store of explicit knowledge should support proper decision making, unfortunately in most cases organizational hurdles limit employees' ability to gain the maximum value from it. This is particularly true when information is in a multitude of locations and formats so that it is not always apparent where to find the desired information. Often there is no way of knowing, for example, whether particular pieces of information are out of date. In many educational institutions, if a typical teacher or lecturer is asked to produce the school or college's organization chart, programme of self-evaluation, student recruitment figures, the internal telephone directory, or a list of courses and programmes, it often becomes a chore when it should be a quick and routine activity. It is often said that finding the internal telephone extension takes at least five minutes in the average organization.

Explicit knowledge is:

- objective and formal knowledge;
- tangible information;
- capable of being codified;
- consciously accessible;
- easily networked on databases and intranets;

- easily communicated and transferred to others by letters, e-mail, the Internet etc.

Tacit knowledge

There is a second concept of knowledge called *tacit knowledge* that derives from the works of the philosopher Michael Polanyi. He sums up the concept in his memorable phrase 'we know much more than we can tell'.

In using this phrase he illustrates how difficult tacit knowledge is to communicate and to share. Tacit knowledge highlights the importance of a subjective dimension to knowledge. It is personally and socially embedded knowledge that contains hunches, insights, intuitions, feelings, imagery and emotions. It is deeply rooted in an individual's experience and consciousness and is fashioned by his or her experiences, values and culture. It is the knowledge that helps individuals make sense of their world and as such is often deeply affected by personal beliefs and values.

Tacit or personal knowledge is:

- socially constructed knowledge;
- the folklore folklore of the organization;
- stored inside people's heads;
- the knowledge of the mastery of a skill;
- a mix of values, insights, hunches, prejudices, feelings, images, symbols and beliefs;
- difficult to codify and to store on databases and intranets;
- often difficult to communicate and share;
- a valuable and rich source of experience and learning.

Implications for managers

The distinction between the two concepts of knowledge has practical implications for its management. Understanding the distinction helps an organization analyse the nature of the knowledge at its disposal. It enables it to understand the importance of tacit knowledge, but it also requires it to understand its limitations. Explicit and tacit knowledge each require different forms of management. While tacit knowledge lies at the heart of an organization, its very nature renders it highly personal, and it is difficult to use effectively.

Managing knowledge is as much about good people management as about information and data processing. There is a need to find processes to make tacit knowledge communicable and available to a wider audience wherever possible. Harnessing tacit knowledge requires excellent management, interpersonal and communication skills as well as a good IT infrastructure. Realizing the potential of tacit knowledge involves an enormous culture shift and is a much bigger project than just investing in information technology. It is about trusting and valuing staff.

Simply listening to people talk about their personal knowledge is an important activity in an organization and is the reason why appraisals, performance review, feedback sessions, mentoring, exit interviews and other good HR practices are so important. Teamwork and more informal networking and mentoring groups can also be a very useful means of sharing tacit knowledge. As organizations grow, it becomes increasingly unlikely that word of mouth will be an adequate means of conveying all the tacit knowledge that needs to be shared. There will be a need to find more formalized means of sharing. Action learning projects as a part of a learning organization initiative are a good method of doing this, particularly where an inquiry team investigates an issue and reports their findings back to a wider group. This is particularly powerful if the inquiry team is a cross-level, cross-corporate group.

Sharing knowledge

The focus of management needs to be on understanding the dynamics and the psychology of personal knowledge, Tacit knowledge is difficult to control in a predictable way. For example, many employees do not recognize that the knowledge they possess is even the property or province of their employers and may see it as their own intellectual capital. They may see no reason to share their knowledge with others in the organization. They may see it as personal and private.

To compound this problem, there are disincentives to knowledge sharing in most corporate cultures. In many organizations, individuals perceive their greatest value to be what they know. For them knowledge is power. Their unique information gives them status, and often guarantees that they are listened to and consulted. For some it is their insurance that they remain in employment. What happens if they share their knowledge? They may erode their personal value within the organization, or they may be beaten to a promotion by the person with whom they shared an idea. The other person may use their ideas as their

own. Thus, they may no longer be seen as valuable or important if their knowledge goes into the public domain. Bearing these considerations in mind people usually have good reasons to hoard and withhold information. It is the source of their own power and sometimes of their identity and status as well. This is particularly so if there is a threat of redundancy. Such situations make the employees who remain after a downsizing exercise very wary about being too public with what they know. Those who remain in a job may see their personal knowledge as their only form of personal power in an otherwise uncertain and fragile future.

It is the task of managers to develop practices that encourage knowledge sharing. It is a key aspect of quality improvement that people can share their knowledge and expertise. Proper teamwork cannot operate without it. Building up trust is key to knowledge sharing. No-blame cultures and a willingness to take risks and to learn from mistakes and failures are part of developing a knowledge-sharing culture.

Communities of knowledge

It is important to understand that knowledge is often built up and generated by informal, self-organizing networks of practitioners. These ad hoc groups are known as *communities of practice* or *knowledge communities.* They are groups of like-minded people who have met to share experience. They have many similarities with quality teams and quality circles.

They differ from work teams in that they are not formal or task-orientated teams. Instead they are self-organized networks, whose organization is one that makes sense to its members. They are often brought together by common interests and find their common purpose to be the need to share expertise and solve problems. They develop in the social space between formal hierarchies and project teams. They are created out of a need to share and communicate ideas.

The idea of knowledge community networks is one that has a strong resonance for education. Teachers and lecturers, after all, have a strong sense of their own worth and a strong sense of professionalism. They relate well to colleagues and use their peers as sounding boards for ideas. It may be that the knowledge community is the model for productive knowledge sharing in education. After all, we commonly talk of a community of scholars, but of ten there is no institutional

encouragement or structure to help such communities flourish. Education needs to work hard to develop real communities of scholars.

Knowledge communities:

- are self-organized informal groups;
- have social meaning to members who value the relationships formed in the community;
- are learning communities;
- build around common purposes and things that matter;
- involve the common pursuit of problems and solutions;
- operate across functions and divisions;
- can be supported by nurturing management and leadership styles;
- have a life life cycle which depends on the value of the task to the group;
- are repositories of tacit knowledge;
- can make tacit knowledge explicit;
- can keep organizations at the leading edge of knowledge creation;
- can effectively use the emotional IQs of their members;
- can be supported by nurturing management and leadership styles;
- have a strong resonance in education.

Knowledge creation

Despite all the discussion about knowledge as the key to organizational success in the 21st century, there is still very little known about the best way to leverage knowledge in practice and to create it systematically. Knowledge communities are probably one of the best practical means of developing and leveraging tacit knowledge, and as such many commentators see them as a way forward. Such communities can, of course, be virtual communities and need not have a defined geographical place. They are not a substitute for other elements of the organizational structure. They should not replace the more formal work team or project groups. They are much looser networks that colleagues form themselves. They are an important addition to the important array of relationships in an organization, but ones specifically focused on leveraging knowledge creation. The important glue of such communities is their communications mechanisms. It is through communication with colleagues that knowledge is shared. Knowledge communities are ideally placed to use communications techniques such as storytelling and learning histories to advantage. To quote from Seely and Brown: The talk and the work, the communication are inseparable.

The talk made the work intelligible, and the work made the talk intelligible'.

Communities exchange and interpret information, build expertise, act as repositories of knowledge. They can create new knowledge and ideas that can keep the institution at the cutting edge. Theirs is a form of collective intelligence, which builds and develops tacit knowledge. Typically, knowledge communities develop around things that matter and have an important role in knowledge management and creation. They are extremely good at solving problems, particularly those that are unexpected. Formal structures are often not good at the 'out of the blue difficulties', while informal networks are highly adaptable because they do not have to follow the protocols of educational hierarchies.

Learning conversations—learning from tacit knowledge

Tacit knowledge is based on insights and personal experiences. It can be an uncertain and personal, and sometimes a chaotic form of knowledge. It is difficult to capture and use effectively and the knowledge conversion and sharing processes can be problematic On an individual level, acquiring tacit knowledge is about how people organize their own world and acquire important informal competencies. On an organizational level, tacit knowledge can contain much important information about what makes the organization tick. It is a rich source of information by which an organization can learn from its successes and failures. However, it is often seen as too difficult to handle. The solution is not to dismiss tacit knowledge; rather, ways need to be found to make tacit knowledge more generally accessible and easier to manage. One answer to this problem is to use a technique known as *storytelling* or *learning conversations.*

Learning conversations, storytelling, learning histories and organization dialogues, as they are variously called, involve employees reliving in a structured way critical moments in the life of the organization. They can be said to be *a talking therapy* for organizations. The method is straightforward, but powerful. It involves employees meeting together in a structured way and discussing what went right and wrong in particular situations. From that they agree the lessons that emerge from them. It is important that the critical episodes are fully discussed, documented and evaluated. Learning conversations attempt to document all that happened in such a way that it is helpful, so that an organization can learn from its own experiences. The idea is that the

organization communicates how it does things and the processes it used, but particularly the role individuals played and how they felt and acted in the process. The learning conversations can contain reports, surveys and notes of actions, but they also require personal and team evaluations and critical self-assessments. They can be used as a source of staff training and future decision making.

This critical incident storytelling process requires employees to reflect on their experiences, and as we shall see in a future chapter the technique has much in common with action learning. Analysing a critical incident involves looking at such things as did the employees enjoy the activity, were they surprised about the way they acted, did it stretch them, excite or scare them, have they developed new skills in the process? Was the outcome of the activity successful? Most importantly, what did they learn from the experience? This process of tacit conversion involves bonding, sharing information ormation and communicating best practices, success stories and failures. The social process of storytelling makes people relive the critical incident as part of the process of evaluation.

To be effective, such techniques need to be well structured with a good problem-solving agenda and culminating in an action plan to take the learning forward. The learning conversation approach helps to overcome fear of change. Many knowledge management programmes have failed because managers have underestimated the fear of change and the scary nature of the unknown among their employees. There is a danger that organizations become awash with their own propaganda and fail to recognize both the weaknesses but also the strengths within themselves. It is difficult to propel people into the unknown and ask them to take on a new approach and attitude to their work. This is where the critical incident comes into its own. Change arises out of learning. Corporate storytelling can be a vital means of ensuring that there is effective corporate learning. Most importantly, it grounds any ideas and procedures that arise from it firmly into the people and culture of the organization.

Learning conversations and storytelling:

- are effective means of institutional learning;
- ensure that organizational memory is expanded;
- build teamwork and communities of practice;
- help to overcome fear of change;
- help staff reflect on their experiences;
- promote the sharing of experience and ideas;

- provide a time for reflection;
- utilize the critical incident method;
- require an action plan to move on the process of sharing.

Knowledge and kaizen

The nature of knowledge, according to two of the most prominent writers on the subject, Nonaka and Takeuchi, has an important cultural base. They believe that the distinction between tacit and explicit knowledge represents the essentially opposing cultural differences between Japanese and US attitudes and approaches to doing business.

They argue that the Japanese place more value than the US people on corporate knowledge and are more inclined to value tacit knowledge. The Japanese have a business culture of continuous improvement and innovation, and this path of *kaizen* has led to them valuing highly intuitive, ambiguous and non-linear ideas. By contrast, US people are more mechanistic in their approach. They prefer rational, logical and quantifiable data and are less likely to innovate providing that current solutions work. Theirs is a culture of 'if it ain't broke don't fix it'. Nonaka and Takeuchi see the US people as exponents of explicit knowledge. They argue that their reliance on explicit knowledge places the US economy at a long-term disadvantage, as innovation is the key to business success in the knowledge age.

The Japanese, by contrast, they believe, have been able through their team and quality circle approaches to convert tacit to explicit knowledge, thus capturing crucial insights into the business process. If they are right then developing the intuitive side of an organization's knowledge is clearly an important element in its long-term success. It needs to be given the same degree of thought that is given to the development of those vehicles that propel explicit knowledge, the intranets, corporate databases and data warehouses.

Tacit knowledge is the human face of knowledge, and can provide the institution with an altogether different perspective from that it can learn from its explicit knowledge. It is a source of knowledge that an organization ignores at its peril. It is an interesting and important component in *kaizen,* the process of continuous quality improvement, as it provides some of the essential insights and leaps of thinking that are so essential when attempting quality innovations.

10
Tools

'Educators should learn to use and interpret the basic strategies that are most frequently applied to quality improvement.'

Stanley J Spanbauer, A Quality System for Education

There is a need to turn philosophy into practice and to develop practical means by which teams within education can achieve quality improvement. Quality tools and techniques are the means of identifying and creatively solving problems. One of the powerful aspects of TQM is the bringing together of a range of useful tools to implement its underlying concepts. However, the power of the tools can only be experienced by regular use. Most are simple and some, like brainstorming, are already in regular use. It is important to find the right tools for the job and train staff in their proper use. With practice such tools can become part of the decision-making culture of the institution.

Brainstorming

Brainstorming, developed by Alex Osborn in the late 1940s, is a classic technique of creative group thinking. It is based on the notion that we often tend to evaluate ideas at too early a stage of their development and this can lead to good ideas being rejected at source. In place of evaluation, ideas are put forward and recorded without judgement and so the processes of creating ideas and evaluating them are separated

Brainstorming is an ideal TQM tool. It is also enjoyable and productive to use. It taps into the creativity of a team and allows team members to generate ideas and issues quickly. A successful brainstorm allows staff to be inventive and free from restriction. However, it has limitations. While it excites the imagination and stimulates ideas, it is

not a tool for analysis. Brainstorming does not provide objective assessments of a situation. As a result, it needs to be used together with other tools, such as affinity networks or the construction of Ishikawa diagrams (see the next two sections).

A team using brainstorming should follow these simple rules:

- Be clear what the brainstorming is about.
- Nominate someone to write the ideas down somewhere visible (a flipchart is ideal).
- List all ideas as they are expressed.
- Don't discuss or criticize any ideas.
- Build on previous ideas.
- Quantity is good.
- Spontaneity is encouraged.
- Evaluation is deferred.
- All ideas are recorded.

A brainstorming session can be either a structured or an unstructured activity. Structured brainstorming involves every member of the team in turn giving ideas in rotation until the ideas run out. This forces everyone to take part and can be used to reinforce the identity of a team. Unstructured brainstorming simply allows people to express ideas as they come to mind. This method stimulates creativity, but it does enable the more vocal members to take control. Whichever method is used, a brainstorming session should never last for more than 10–15 minutes.

Brainstorming is particularly useful for problems that do not require technical or in-depth solutions and where professional expertise is not required.

Affinity networks

This technique is used when there is the need to group a large number of ideas, opinions or issues and to categorize them. The aim is to identify which ideas have more affinity than others and to group them accordingly. The affinity network makes use of creative rather than logical processes. It helps make order out of chaos and stops a team drowning in a sea of ideas.

Affinity networks are a simple and powerful team process. They can be started with a brainstorming session. The team ideally should be kept small. The issue to be resolved needs clearly stating and must be understood by all. For example: 'What factors need considering in the

student admission process? What issues are involved in unbiased advice and guidance?' The process that follows is a simple brainstorm with one difference. All the ideas are written on cards or Post-its. There should be no one-word ideas. There needs to be enough detail to provide clarity as to the meaning of any idea. At the end of the brainstorm the cards should be randomly laid out on a table, or if Post-its have been used they can be stuck on a whiteboard. This stage has one rule—it must be carried out in total silence. During the next stage the whole team sorts out the cards or Post-its into their related groupings. It is important to stress to the members in advance that this should be on the basis of their gut reaction and should be a quick process. Everybody has the right to move all the cards in or out of a group and to create new ones. This might sound like a recipe for chaos but it is surprising how quickly a consensus develops. Once the groupings are established the team must quickly decide on a heading card or title for each grouping. They place the header cards at the top of their group. The header needs to capture the essential link between the ideas in each group.

The next stage is to work out the relationships or affinities between groupings by drawing lines to link them. This will produce a tree diagram. The final result is a clarification of a complex set of issues or ideas into a small number of linked ideas with the relationship between them clearly established.

Fishbone or Ishikawa diagrams

This technique goes by a number of names, including 'cause and effect', 'fishbone' or 'Ishikawa' diagrams. The last-named is after Kaoru Ishikawa who first introduced them. The technique allows a team to map out all the factors that affect the problem or a desired outcome. The mapping may best be carried out through a brainstorming session. The aim is to list all the factors that affect the quality of a process and then to map the interrelationships between them.

The Ishikawa diagram is a visual list drawn up in a structured fashion. It illustrates the various causes affecting affecting a process by sorting out and relating the causes to each other. For every effect there will be a number of causes and it is usual to group these in a number of major categories. This tool is used when an institution or a team needs to identify and explore the possible causes of a problem or look for the factors that could lead to an improvement. It is appropriate to brainstorm the causes and effects to create the diagram.

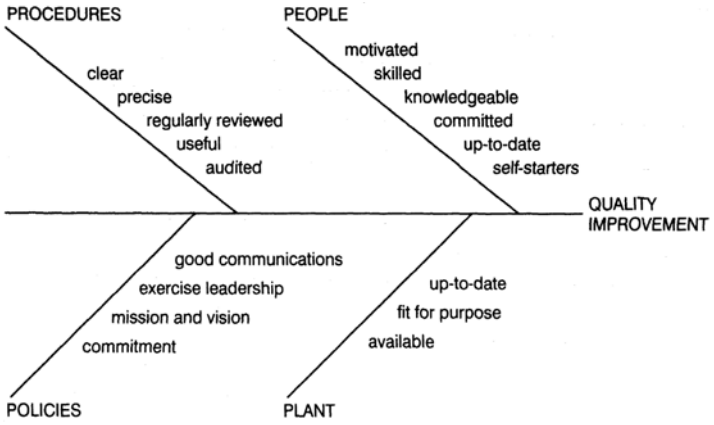

Figure 10.1 *Ishikawa diagram*

Force-field analysis

Force-field analysis is a useful tool for studying a situation that requires change. It is based on the idea that there are two opposing forces to change. One set of forces is driving the change while the other set resists.

The analysis rests on the simple proposition that strengthening the promoting forces can bring change or neutralize the resisting forces. It is a helpful tool because it promotes identification of all the forces involved. It is useful to remember that some of the resisting forces may be outside the institution's control and may not be worthwhile wasting time on. Effort should be spent on the areas it is possible to influence.

Process charting

This technique can be used to ensure that the institution knows who its customers are and can identify the resources required to service them. The process diagram provides data on the environment in which the process operates and the control that is exercised over it.

Flowcharts

Flowcharts are useful when a problem needs a systematic approach, or where an activity needs to be charted. They assist in identifying the steps in the process. They record the necessary sequence of stages, decisions and activities required. As part of an improvement process

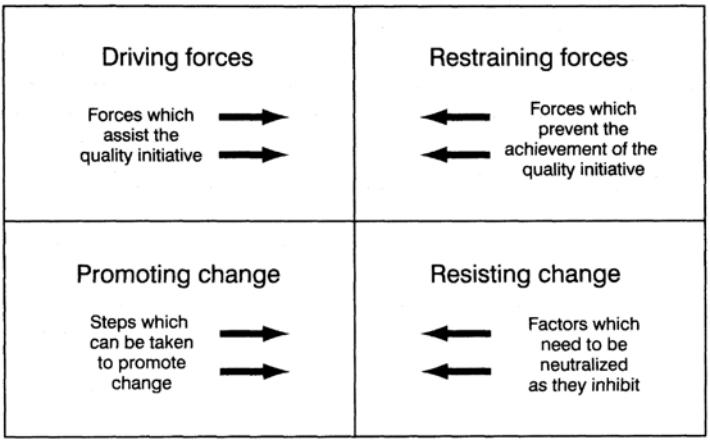

Figure 10.2 *Force-field analysis*

they provide a simple method of taking a critical approach to a problem. They also provide a clear and easily understood diagrammatic representation of a process. What often takes pages of narrative to describe in print can be summed up in an easily understood flowchart. For an educational establishment, charting its procedures for ISO9000, flowcharting provides a simple and useful means of describing its procedures. One of the important elements of flowcharting is the simple act of drawing them up. Charting a process or procedure improves knowledge of it and highlights areas for improvement.

Pareto analysis

Pareto charts are named after the Italian economist Vilfredo Pareto, who at the end of the 19th century, while researching the distribution of wealth, came to the conclusion that the vast majority of wealth was in the hands of a tiny minority of the population. From this analysis has developed the famous Pareto Rule that 80 per cent of problems arise from 20 per cent of processes. Sometimes known as the 80/20 Rule, the Pareto Rule is an important idea. If the 80 per cent problem areas can be identified they should be tackled first in any quality improvement process. Effort should be put into the areas that cause the most difficulty. Pareto charts are simply special forms of vertical bar charts that assist in the solving of quality problems. Pareto charts direct attention to the most pressing problems facing a team or an institution.

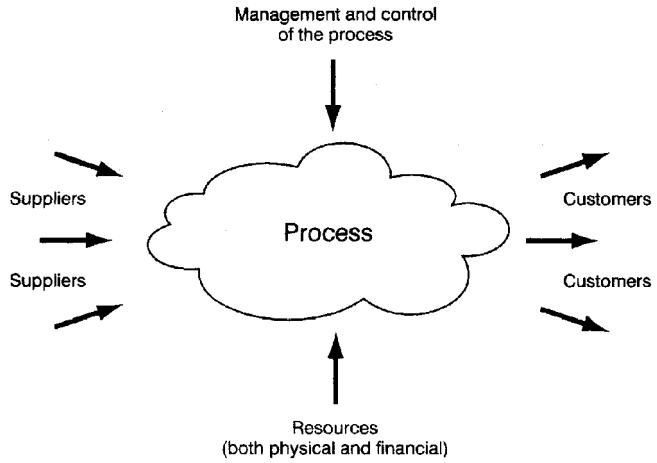

Figure 10.3 *Process charting*

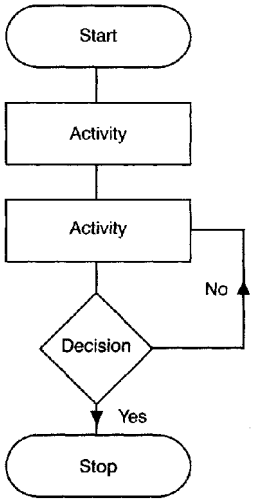

Figure 10.4 *Flowchart*

Career-path mapping

Charting a pupil's or a student's career through the institution provides a simple means of identifying the milestones or the potential barriers which they will have to negotiate during their time at school or college. Each milestone is a potential problem area where differences in

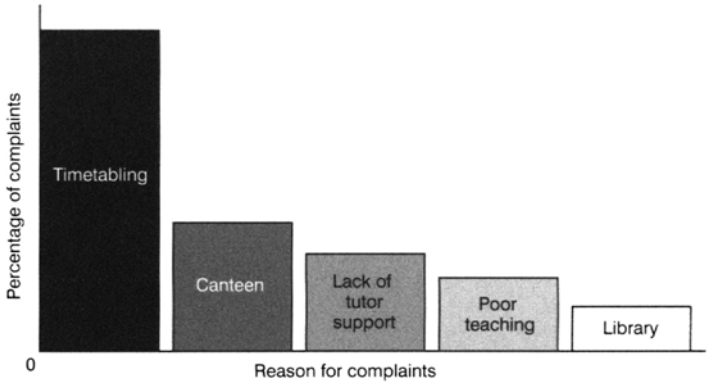

Figure 10.5 *Pareto chart*

perception and expectation have the possibility of leading to errors, misunderstandings, and possibly failure. A valuable exercise for an institution is to establish the learner's career-path and to identify against each milestone the quality characteristics and quality standards that should be in place.

When considering using this tool it is important to note that many of the problems and conflicts are likely to occur when the student or pupil passes from one stage to the next, rather than within each stage. While curricu lum delivery is often seen as the most important stage in the learner's career, there is a danger of focusing all the institution's attention on it at the expense of other career stages.

Quality function deployment

Quality function deployment or QFD is a technique used extensively by Japanese companies and increasingly by many leading Western corporations when designing a product. Put at its simplest, it involves finding out what customers want before designing new products or services and ensuring that at every stage of the design process the customers' needs are considered and incorporated. It is generally accepted in TQM circles that while a new product may be technically acceptable, without the essential ingredient of QFD it can lack the additional elements of 'surprise' and 'excitement', which enable a product to exceed expectations and give a new product a marketing edge. To carry forward these ideas it is important to ensure that there is

a continual flow of information going through the product design life cycle from initial concept, to detailed design, to manufacture, and through to the product going to the market.

Clearly, the ideas behind QFD can equally be employed in the service industries and in education. In today's educational marketplace, what are the factors that make one institution different from another? The basic curriculum is usually the same. It is the value-added which gives an institution the edge. Finding that value-added is usually not a matter of luck. It requires careful listening, detailed market research and a careful analysis of what customers want. Too often educational institutions provide only what they think their customer groups need. The QFD technique involves deciding what are the critical characteristics of any new product, charting these at each stage of design and production and establishing the customer requirements for them. Doing this in a detailed and systematic manner will ensure that the voice of the customer is heard long before a new product comes to the market. It highlights the critical issues from a customer's viewpoint and can deal with them before the product is launched. This clearly can result in considerable saving, as it involves not having to put things right after the event. The technique can also be adapted to problem solving and management decision making. QFD is best tackled by teamwork and can be thought of as a systematic approach to addressing the problems raised by customers during the design and implementation stages. Like any tool it is not foolproof, but careful use should aid quality improvement and reduce the likelihood of significant errors.

While teachers may, in some circumstances, know best, it is usually not the case that they know best in all circumstances. Adapting the methodology of QFD of consulting and researching customers' views at each stage of designing or reviewing the 'product' can make a considerable difference to the way in which decisions are made and the quality of decisions taken.

11
Benchmarking

'Benchmarking is about bridging the gap between where we are and where we want to be.'

Edward Sallis

All organizations, public and private, are faced with increasing competition and those that provide public services have the additional demands of increased scrutiny and accountability. To meet these increased demands, new techniques have to be devised that allow institutions to stay ahead of the competition and allow them to demonstrate that they are performing well and providing value for money. Educational institutions need to develop tools that can be built into their own structures that allow them to learn both from their own successes and failures but also from the best practices of others.

What is benchmarking?

In industry, benchmarking involves analysis of the best products and services available in a particular marketplace, or comparing best practices across industry sectors. These products or services become the targets or 'benchmarks' that the organization strives to meet. In education, benchmarking focuses on what are considered to be best practices and organizational features of special merit.

A benchmark is a standard against which to measure present performance. It is usually undertaken by seeking the best of the competition and understanding the way they produce quality. In manufacturing, benchmarking is a powerful tool in new product development. It involves evaluating any new product against that of the industry leader. It can be taken a stage further so that not only the product, but also the systems used to produce the product are compared.

The essence of benchmarking is about comparing the performance of critical processes against those of leading performers to identify how they achieve their results.

Benchmarking is the means of establishing a competitive advantage. It is about finding out who is the best and seeking to better it. Benchmarking provides a means of learning from and doing better than the market leader. It can considerably speed the development of a new curriculum and assure that quality standards are built in at the planning stage. The point of benchmarking is to ensure that your standards are at least as good if not better than those of your competitors. As such it is a systematic approach to organizational improvement By undertaking the exercise the best practice is sought and new processes are put in place *to go beyond* the benchmarked performance.

In education there are various simple means of benchmarking which can be carried out as staff development exercises. Teachers can simply visit other institutions in their area and see how things are done. They can discover best practice and ensure that theirs matches it, and then seek to improve on it. The importance of benchmarking is that it saves reinvention. There is almost always someone somewhere who has solved your problem.

The history of benchmarking goes back to the late 1970s, and like many quality technologies it has its origins in manufacturing. The Xerox Corporation is often credited as the first company to use the technique in a systematic manner. It initially involved an in-depth study of what competitors were doing as well as the reverse engineering of competitors' products and technology. This literally involved taking things apart and trying to learn how they were made. Through such processes companies learnt more about themselves and about the best practices of their competitors. However, the process soon went beyond manufacturing because it became clear that after-sales service, marketing, sales and other functions of the competitors' business could also be benchmarked. In a word, benchmarking moved from an activity undertaken in relative isolation to become a mainstream part of organizational strategy.

Learning from the best

Benchmarking can be defined as a systematic process for measuring and comparing the performance of one organization against those of others. The goal of benchmarking is to learn the lessons of others and to use them to make improvements in one's own organization. It is therefore a

process whereby internal performance is compared to that of other organizations, particularly those with superior levels of performance. The aim is to look for what makes the difference in those higher-performing organizations and to learn their secrets of success. This has led to the idea of *world class,* whereby companies model or benchmark themselves against the best global standards of performance. This can apply equally to education as to the manufacturing or the service sector. Too often education does not measure itself in global terms, but the possibilities opened up by information technology make it easy to find information about other institutions adopting best practice models, and finding ways to cooperate with and learn from them.

Benchmarking is an important and useful quality tool not only for continuous improvement but it also provides the necessary comparisons for accountability purposes. However, it is one that should be considered once an organization has taken some steps to improve quality. It is a proven tool for quality improvement and can be of considerable assistance with the process of quality improvement.

What benchmarking is *not:*

- copying or trying to catch up;
- a panacea or a quick fix;
- spying or educational espionage;
- educational tourism;
- a cost reduction exercise.

What benchmarking is:

- about learning from and trying to surpass the best;
- identifying gaps in performance;
- closing the gap between present quality and expectation;
- seeking fresh approaches so that it aids innovation and new thinking.

Benchmarking has close links with *knowledge management* (see Chapter 9) and with the idea of becoming a *learning organization.* A well-structured benchmarking exercise is a learning experience for the institution and a means of making the best use of the ideas and knowledge available to that organization.

Internal benchmarking

Benchmarking does not have to be about comparing yourself with another school or university. Internal benchmarking, comparing and learning from the performance of different departments or subjects, can be an effective exercise, and is often a good place to start. There are no issues of confidentially or problems of accessing sensitive data.

Few organizations systematically study themselves or know much about the practices and processes in other parts of the organization. Exercises such as systematic lesson observations, information-sharing forums and knowledge-sharing communities are all means by which people can learn from each other. It may be that the answer to a problem or the means of achieving what seems like an unrealistic goal lies within the organization.

One interesting method of internal benchmarking can be learnt from knowledge management; see Chapter 9. This form of internal benchmarking makes use of the *learning story*. In this technique the story or history of a particular part of the institution is written up, filmed or videotaped in such a way that the salient features of success come to the fore. In such a technique it is important that the team themselves have an input so that the authentic voice of success is apparent to the listeners and viewers. The learning story is not just a report about actions and results. Its power comes from its ability to convey the reality of the situation and allows the reader to undergo a learning experience from reading it. The learning story can be used as part of a staff development or quality improvement session.

Functional/competitive benchmarking

Comparing your institution's performance with other schools, colleges or universities who are competitors can be a very effective means of benchmarking. This is often called *functional benchmarking*. It provides like-for-like comparisons with other educational institutions and gives a very good idea of your overall institutional performance. It is important in this exercise to compare against institutions that are leading performers.

It is important to be clear what you want to compare in the exercise. Many countries, like the United Kingdom, publish league tables of school examination results and detailed comparisons of university performance indicators. While these can be very useful, there may be a wide range of issues that can be compared, and it is important to be clear about what aspects of performance are being compared.

Functional benchmarking can be of two types: *competitive* or *collaborative.* The problem with competitive benchmarking is finding out how the rival does it. Often the key information is difficult or impossible to obtain, and it is important that benchmarking does not become an exercise in spying. As a result, many commentators prefer *collaborative benchmarking* where the organization being benchmarked actively collaborates in the exercise. This has the advantage of a mutual benefit as any organization has lessons to gain from another.

The educational travel club

To carry out inter-institutional benchmarking it is often useful to visit other schools to see how they do things. Often thought of as a type of *educational tourism,* it is an important exercise to see how others do things and to learn lessons from them. Of considerable value is being able to visit educational institutions in other countries and to make international comparisons. This is particularly important if your institution has ambitions to become world class.

Good sources of information are conferences and seminars, but much good data on other information can be obtained from official sources, annual reports, inspection reports and from the educational press.

Generic benchmarking

It is often beneficial to make comparisons with organizations outside of education. This can often be of value in areas such as management systems, teamwork, information technology, human resources management, quality assurance processes, and customer care. Making comparisons with outstanding practice, regardless of the industry, is a very powerful means of quality improvement.

This often has the advantage that it is easier to carry out than competitive benchmarking and there is a large two-way benefit to be had from the exercise. Most organizations are willing to share information providing that the approach is made in a professional manner. It is usually seen as a learning experience and one that can be challenging and purposeful.

How to set up a benchmarking exercise

Once you know whom you want to benchmark against, it is important to have a clear idea of what questions to ask and the performance measures you intend to use when setting up the benchmarking activity.

There are a number of fundamental questions that an educational institution should be asking itself when undertaking a benchmarking exercise. These are:

- How good do we want to be?
- Are there standards available that we can benchmark ourselves against?
- How well are we doing in comparison with the best?
- Do we know who is doing it best?
- How do we compare with the best?
- What are they doing that makes them so good?
- Where are the gaps in our performance?
- How can we learn their lessons?
- How best can we bridge our gaps?
- How can we do better than the best?
- What do we need to do to become the best?

Planning a benchmarking exercise

Stage 1 Planning

It is important to plan a benchmarking exercise carefully. Benchmarking takes time and can be costly, so it needs to be well planned. Successful benchmarking should be aligned to organizational priorities and critical success factors of the institution. It also needs a clear understanding of the purposes and benefits that are expected from the exercise.

Stage 2 Identifying potential partners

This stage should involve considerable research into the likely partners for the exercise. This is the stage when the type of exercise needs to be considered. Is it to be an internal, functional or generic benchmarking exercise? Are there clear goals as to what the exercise is to achieve?

Stage 3 Analyse the processes and practices of the benchmark partner

Identifying best practices is the key to this stage, but by itself this is not sufficient. It is equally important to understand the drivers and enablers that allow the benchmark partner to achieve the level of performance that you have identified as best practice. How they do it and how they keep doing it are the two key questions of this stage.

Stage 4 Adapt your own practices to become the best

There is no point undertaking a benchmarking exercise unless the institution is going to adapt its own practices in the light of the information gained. This is a difficult stage because it involves a great deal of management effort in changing culture and implementing new working practices.

Stage 5 Review the success of the activity

As with all such change management exercises, it is important to review the success and effectiveness of the benchmark activity. Were its goals met? Was the activity worth undertaking? Are you performing or are you likely to perform at the same or better level of performance than your benchmarking partner?

The benefits of benchmarking

- Benchmarking creates a better understanding of your current position.
- Benchmarking provides a means to find out how other organizations are doing.
- Benchmarking ensures that the institution has a series of stretching goals.
- Benchmarking encourages a culture of innovation.
- It ensures that there is a striving to be best.
- It establishes realistic action plans.
- Benchmarking can be used to underpin other quality initiatives such as the Business Excellence Model.

Are there any drawbacks to benchmarking?

While benchmarking is a very popular quality technique, it does have its critics. There are those who believe that it can be a waste of effort and that the rewards do not outweigh the time that has to be invested. One of the main criticisms levelled at it is that success is often a matter of culture and that it is very difficult to replicate those aspects of the organization that lead to outstanding performance. Often the difference lies with the competence and capability of the staff and those important but intangible qualities such as commitment, creativity and the ability to rise to a challenge.

The other main criticism of benchmarking is that in the hands of government it can lead to a *name and shame culture* whereby so-called 'poor performers' in league tables are publicly pilloried. Such practices are rarely conducive to positive and forward change.

However, despite these reservations, benchmarking is usually regarded as a positive technique and one that can lead to positive improvements if planned and executed properly.

12
Measurement

> *'Measures of productivity are like statistics on accident: they tell you all about the number of accidents in the home, on the road, and at the workplace, but they do not tell you how to reduce the frequency of accidents.'*
>
> *W Edwards Deming,* Out of the Crisis

One of the reasons for developing quality improvement processes is to build a successful school and in turn to provide students with the greatest possible degree of success. As a mission statement this is something that we can all subscribe to, but the issue is how can we best do this? What factors make a successful educational institution and how might these factors be linked to measurable indicators of success? The idea of *performance measurement* here is crucial because it is through measurement that we are able to analyse the *effectiveness* of quality improvement processes and through measurement that we are able to demonstrate our institution's *accountability* for the use of public resources.

Why measure educational quality?

Performance measurement and quality monitoring are crucial themes in the literature of total quality management, going to the heart of the original work of Walter Stewhart and W Edwards Deming. Their groundbreaking notions of using statistical process control tools to measure and then to eliminate variability in manufacturing processes and outputs have been adapted and applied in social contexts. They are powerful tools and can have a major impact on leveraging up quality.

However, it is crucial that the control of these measurement tools is in the hands of the practitioners, and preferably developed by them. They

should not be forced on them by outside agencies. What quality measure ment must not become is an exercise in imposing externally set targets on institutions. This not only deprives the institution of the ownership of its means of improvement, but it also forces on it an external inspection regime that can induce fear and stress. After all, Deming's point 11 of his famous 14 is 'eliminate work standards that prescribe numerical quotas'. While this was written for an industrial setting, it has the same power and resonance in the educational context. He did not believe that quality could be measured solely on the output of a process. He also argued that working to numerical quotas and targets leads to corner cutting and an overall diminution of quality. This is true in education.

The means by which quality is improved cannot be reduced to a mere technical matter of installing statistical tools designed elsewhere (although this does not mean that in the interests of good benchmarking other people's ideas should not be used). Rather it is up to the practitioners themselves, usually working in teams, to devise measurement tools that allow them to monitor the targets that they themselves have set. In order to do this the tools need to be situation specific, and any monitoring must ensure that not only are things measured right, but that the right things are measured, and that the right conclusions are drawn from the data.

Measurement has as its end purpose identifying the capability to reduce variation. This is to separate the actual from the intended. In order to reduce the variation we have to accurately locate the causes of the variation. We need to know why a particular level of variation exists. If we do not understand why, we are in danger of misusing the data, and rather than making an improvement we may demotivate a team or an individual or make matters worse.

Barlosky and Lawton in their book *Developing Quality Schools* (1995) draw attention to the need to ensure that we do not confuse the common causes of variation with any special causes when carrying out educational measurement. Usually the common causes are about processes and organizational structures. Special causes relate to individual differences, behaviour and capabilities. For example, a significant drop in the examination pass rate for a group may indicate a failure of teaching technique (common cause). However, if upon further analysis we find that the problem is related to the long-term illness of a number of the students (special cause) then the management action required will be of a very different nature.

It is worth reflecting upon the fact act that Deming believed that 95 per cent of all variation is caused by common rather than special causes. This figure probably reduces significantly in social settings, such as those in teaching and learning. It indicates that systems changes are the key to reducing variation. If we locate causality in the system rather than in the individual then we not only end blame cultures but we are also on the way to making significant quality improvements. As Victor Dingus, former benchmarking manager for or the Eastman Chemical Company in the United States, quoted by Barlosky and Lawton (1995), has said:

> *The fact is that most troubles (95% says Deming) lie in the system. People always do what makes sense to them. The system must be changed. Do not blame the people for the system.*

To be able to identify common and specific causes of variation we need to collect data, and the data we collect has to be significant and useful. Too often we collect *dead data,* that is, data that is an end in itself rather than data that is really useful. We need always to ask ourselves the question 'How is this data going to be used and why are we collecting it?' When we collect data it is important to:

- be clear what we are measuring;
- know why we are measuring it;
- understand what the data can tell us;
- know what we can do with the data;
- have a clear idea of how the data can be used as the basis of quality improvement.

Why value-added?

A great deal of the data collected in education is about students' performance. That is to say their results in tests and examinations or other recognized measures of success and achievement such as progression to further study or success in securing particular types of employment.

On the face of it, these performance indicators tell us how well students are achieving and, therefore, by proxy how well the school, college or university is succeeding. Such performance indicators have been institutionalized in many educational systems, particularly in the United Kingdom where schools and university league tables are

officially produced for every institution and published in the national and local press. However, when we look at the data behind league tables we find that they tell us less than is generally recognized.

What outcome-based league tables do not tell us is about how well an institution is doing by its students. This is because it only measures outcomes. This only tells us about the students' performance and not the institution's. It does not measure the teachers' or the institution's quality. At its most extreme, a league table may reflect nothing more than the fact that an institution attracts very able and capable students and avoids putting obstacles in their way. Such output performance indicators also have the potential consequence of encouraging institutions to select the best and reject the rest. This means that 'successful' schools, because they select the best, attract the best, while those further down the league tables become associated with failure and cannot attract the able students they need to climb the table.

It is not surprising that many educationalists are looking for a different set of performance indicators to measure institutional success, one that measures the specific contribution made by the institution. This would mean that institutions would be able to measure success on a like-for-like basis regardless of the profile, social background and calibre of their students.

A more useful form of data would tell us by how much students benefited from studying at a particular institution. This would be a measure of *the distance* each student had travelled. It would measure institutional quality, not student achievement. It would be fairer to institutions that attract less able students but manage to add significant value to their learning.

This form of performance indicator is known as *a value-added measure*. The evidence for *value-added* is simply the difference between students' performance on entry and their performance upon completion of their course. Value-added league tables tabulate the differences, not the output totals. They are constructed by using past data to set a target for each student entering the institution. This target is the average achievement of all students with the same entry qualification as the entrant. Should all entrants to the institution achieve their own individual target, the institution would be awarded a value-added index score of 100. If an institution's students under-achieve on average they will receive a value-added index score of less than 100, and if they over-achieve on average they receive a value-added score of more than 100. From work that has been done by the Department of Education and Skills in the UK, the average institutional score is likely

to be between 98 and 102. League tables based on such value-added indices can give rankings that are very different from output-based performance tables.

Value-added measures could be used to support students' learning and not just as a measurement of quality. One hidden problem in education is the underperforming student—the person who has excellent entry qualifications but who leaves with average qualifications. On ordinary performance tables this average performance is put on a par with the weak student who entered with poor qualifications but through hard work and the care of staff produced an average performance. By using a valueadded approach and providing students with targets based on past data it is possible to plot student progress and to take corrective action if a student is under-achieving. Value-added measures could then be used as a means of quality improvement and not just as performance indicators.

Value-added:

- is the difference between the students' performance on entry and their performance on the completion of their course;
- is a measure of distance travelled, not outcome;
- rewards institutions who consistently do well by their students regardless of their students' abilities;
- can be used as a tutorial tool and as a means of student target setting;
- value-added league tables may give very different rankings from those that rank solely on outcomes.

13
Budgeting

> *'Some companies handle budgets well. Some don't. The same is true for self-managed teams… But there's nothing alien about budgeting.'*
>
> *Tom Peters,* Liberation Management

One of the most underrated issues in total quality management is the relationship between quality and institutional budgetary management. Most studies on TQM never mention the topic. A reading of the major quality gurus, including Deming, shows a lack of interest by them in the topic. It is surprising that writers on educational quality have ignored the topic given the key role that financial management has played in institutional decision making in recent years. However, in the discussion of the role of quality in education, it is as if financial decisions have no impact.

Linking budgetary delegation to TQM

The debate about the effectiveness of TQM in education has largely revolved around issues of leadership, institutional mission, teamwork, student satisfaction and empowerment. While these are clearly key issues, without linking them to appropriate budgetary strategies they leave out a vital element in total quality. Without an appropriate and empowering budgetary process many of the TQM objectives are difficult to realize as they lack a relevant driving mechanism. In particular, the success of teamwork and empowerment so central to TQM is inextricably linked to the budgetary process. What does empowering teams mean if those teams do not have the resources to put their ideas into practice? Unless the institution's own resource allocation mechanisms parallel the devolution of responsibilities to teams

explicit in TQM programmes, in reality that devolution will be little more than a cosmetic exercise, and empowerment will be no more than a slogan. Real delegation of authority, which is the essence of empowerment, requires a real and effective control over resources.

The neglect of the budgetary dimension

An interesting question to ask is why so many of the TQM commentators have neglected the financial dimension in TQM. One can perhaps forgive the educationalists, many of whom still believe idealistically that our institutions should be 'student driven' and not 'finance driven'. But the neglect by the industrially based gurus is the more surprising. There is an underlying naivety in much TQM literature, whether educational or commercial, about financial and budgetary issues. The underlying message appears to be that providing one gets the TQM strategy right then economic or educational success will follow. Unfortunately, that is not always the case. Like it or not, educational success is very often resource driven. There are exceptions in the literature to this neglect of the role of budgeting. Tom Peters in *Liberation Management* (1992) does significantly include handling budgets in his checklist for self-managed teams, and in *Thriving On Chaos* (1987) argues that in a 'world turned upside down' financial management and control must be decentralized and that the authority for spending must be delegated down the line.

Following Peters, it is important to recognize that budgetary control is about power in the organization. If we are about liberating staff in our institutions and providing them with professional responsibility, then we have to decentralize budgets and the control over them. As a result, the internal financial management of our institutions becomes a key element in any TQM programme and an important adjunct to any work carried out on building self-motivated teams.

The link between empowerment and delegated budgets

The concept of empowerment is a key element in TQM. The paradigm of the 'up-side down organization' put forward by Karl Albretcht (1988) and described in Chapter 3 is essentially about empowerment. He demonstrates that TQM is about a revolutionary paradigm shift t from a traditional model of management that is based on decision making being top-down to a bottom-up customer service model.

According to Albretcht, this new model turns the structure of authority upside down and gives greater authority and power to the mass of staff working in organizations (Albretcht, 1988). And along with this empowerment goes greater responsibility for the achievement of quality goals for customers and clients.

As Stanley Spanbauer has written in *A Quality System for Education* (1992):

> *When staff are involved in the shaping and monitoring of new plans, they are more willing to buy into continuous involvement and commitment. This creates marked changes in the morale and attitudes of teachers and others— resulting in improved conditions for students. Principals and supervisors have more time for facilitating creativity and innovation.*

In many organizations empowerment is given organizational substance by the formation of semi-autonomous teams. These self-managed teams are the building block of the quality-led organization. As organizations become less bureaucratic, hierarchical and 'delayed', there is a new emphasis on trusting staff and on handing over the control of decisions to those who deal directly with client groups. For many organizations the thrust for total quality is about releasing the energies and potential in their staff.

The empowered team typically has delegated responsibilities, shares information, makes decisions within their areas of responsibility, decides between alternative strategies, and generally assumes greater responsibility than under traditional hierarchical structures. The advantages of this form of working are said to be increased staff motivation, better decision making (as it is taken closer to the point of delivery), and enhanced productivity and organizational performance. Of course, empowerment is not unfettered unfettered freedom. Self-managed teams have to work within an organization framework where the broad strategy and direction have already been set through leadership. Where the teams have autonomy is over how to make the strategy work for their particular client group.

However, to make empowerment work, teams have to be properly resourced. This simple but important fact lies at the heart of the empowerment equation, although money is often the one element not delegated to teams. The move from a centrally controlled organization to a flatter structure based on teamwork is predicated on delegating sufficient resources to allow teams to make a range of significant

decisions for themselves. Delegating responsibility for resource control give teams the wherewithal to make and take those decisions. Without such freedom it is difficult to make meaningful quality improvements in many situations. Linking quality improvement to decentralized budgeting increases the freedom of action available to staff teams. The move has a parallel objective to improve institutional efficiency and to provide better value for money.

How delegated budgets can aid quality improvement

Empowerment is the opportunity given to teams to decide on their own priorities for action within a specified envelope of resources and within a framework agreed with the leadership of the institution. In education such empowerment is often hampered by excessive controls over the command of resources, making it difficult for teams to use resources in an intelligent and creative fashion. Making the team a cost centre is the useful way forward. This allows the team to have greater control over curriculum design by giving them the resources to do the job. It requires considerable trust on the part of managers as it passes power from the centre to the operational units. What the senior managers retain is the key quality monitoring function. They oversee the results of the process —retention rates, success rates and customer satisfaction rather than controlling resources. In a TQM organization teams have significant control over the *inputs* within the objectives laid down by the strategic plan, while managers monitor the effectiveness of the *outcomes* of the process.

Resource allocation models

There are a variety of ways in which financial delegation can be engineered, but the approach that is usually most effective is one that mirrors the way in which the institution itself is funded. This enables staff to understand institutional finances as well as those of their own unit and it helps them realize the environmental constraints under which it operates. There is usually a top slicing of the income to cover such central overheads as senior and support staff costs, building maintenance and central services. The remainder of the income is delegated on a formula derived from the methodology on which the institution is funded. As most methodologies are based on the notion of ‘funding following students’, this principle is similarly applied to the

funding of the teaching units. On the income side each unit is credited with a proportion of the funding it derives from the number of students it enrols and teaches (in some more sophisticated models this is adjusted for drop-out and non-achievement). Teaching units also have to meet the total direct costs of curriculum delivery. The direct costs include not just the cost of materials but also the total staffing costs involved in running programmes. Clearly, the difference between the income and the staff costs is available for the teaching teams to spend as they think fit (within the constraints of the financial regulations) to enable the curriculum to be delivered effectively and efficiently.

It is usual in institutions where such models are used for teaching units to develop an annual business plan that demonstrates how the curriculum is to be delivered within the resource envelope. It is the responsibility of each teaching unit to decide on the best way to deliver their programmes within the available resource after the agreement of its plan with senior management. Senior management make an agreement that certain clear output targets focusing on quality, completion and achievement will be reached in return for this high degree of financial autonomy. It is these output targets that senior management are concerned with, and they form the monitoring and accountability elements within the model.

Links to case-loading

Under this model, once the plan has been agreed it is the teaching unit's decision as to how much resource is put into direct teaching, projects, tutorials, workshops, resource-based learning or any other approach to learning. Academic units are given the freedom to adopt new and innovative approaches if they feel it is to the students' benefit. They can decide on the workloads of their staff and distribute work in ways that meet their curriculum goals rather than have staff workloads determined by senior management. This is sometimes called 'case-loading', and refers to the approach used by many groups of professional workers to base staff workloads on professional judgements bounded only by the need to work within budget (Sallis, 1995, 1996). Such an approach when pursued in educational organizations allows academic units to cope with the varied and diverse features of the modern curriculum in ways that would not be practicable if traditional and hierarchical methods of resource allocation were employed. This is a truly professional approach to curriculum management and one that allows

the philosophy of total quality management to flourish. It returns the responsibility for the curriculum and students' learning to staff teams.

Concluding issues

Clearly, institutions that wish to go down this road will want to ask a range of questions about the suitability of such a delegated budgetary system for their own institution. Because of the range of funding mechanisms it is only possible to deal with the generalities of the concept here. Issues of how management information systems cope with this form of delegated budgeting, about how inter-unit servicing is paid for, and what happens if teachers wish to reduce overall staffing or overspend their budgets, are key questions but are outside the scope of this book. However, what is outlined here is the underlying philosophy of a resource allocation mechanism that is workable and which gives practical effect to the key notion of empowerment in TQM.

14
Strategy

> *'Quality is about customer delight rather than customer satisfaction. It is about total staff involvement rather than hierarchical, top-down system imposition. It is about incremental quality improvement rather than giant quality leaps. It is about living, loving, passion, fighting, cherishing, nurturing, struggling, crying, laughing…'*
>
> *Tony Henry quoted in Sallis and Hingley,* Total Quality Management

Quality does not just happen. It must be planned for. Quality needs to be a major plank in an institution's strategy, and needs to be approached systematically using a rigorous strategic planning process. Strategic planning is one of the major planks of TQM. Without clear long-term direction the institution cannot plan for quality improvement. The first of Deming's 14 points is *create constancy of purpose.* This can only be achieved within the context of a corporate strategy. Underlying the strategy must be the concept of strengthening the customer focus. A strong strategic vision is one of the most important critical success factors for any institution.

The process of strategic planning in education mirrors that normally followed in industry and commerce. The tools employed for establishing mission, goals and analysing strengths, weaknesses, opportunities and threats translate well. The tools themselves are simple and easy to apply. Their power results from the focus they give to the corporate thinking process. They force a questioning of why the institution exists, for whom it exists, and whether it is pursuing the right goals. These are important questions, particularly for institutions that have achieved independent corporate or grant-maintained status.

Strategic quality management

Strategic planning enables the formulation of long-term priorities, and it enables institutional change to be tackled in a rational manner. Without a strategy an institution cannot be certain that it is best placed to exploit new opportunities as they develop. The importance of undertaking the strategic exercise is not just to develop the corporate plan, useful as it is. The real significance is that it directs senior managers' attention away from day-to-day issues and forces a re-examination of the main purposes of the institution and its key relationships with its customers.

There is no special sequence of activities when undertaking strategic planning, although it makes sense to move from the philosophical to the practical. However, it is important to take a systematic approach to planning the corporate future. Strategy must be based around the various customer groups and their expectations, and from these develop policies and plans which can deliver the mission and progress the vision. Figure 14.1 outlines a possible planning sequence that could be adopted by any educational institution.

Vision, mission, values and goals

Many organizations make distinctions between their vision, mission, values and goals (sometimes defined as aims and objectives). They do this to make it clear what sort of institution they wish to be and the direction they want it to move in.

The vision

The vision statement communicates the ultimate purpose of the institution and what it stands for. It needs to be short and direct and point out the ultimate purpose of the institution, for example: 'All our learners shall succeed'. Some commercial examples include, 'IBM means Service', or Disneyland's 'We create Happiness'. Some organizations start with these short and easy-to-remember bullet points and then develop them with a further set of statements that flesh them out. For an educational institution, something along the lines of 'Providing the Highest Standards of Learning' might constitute an appropriate vision statement.

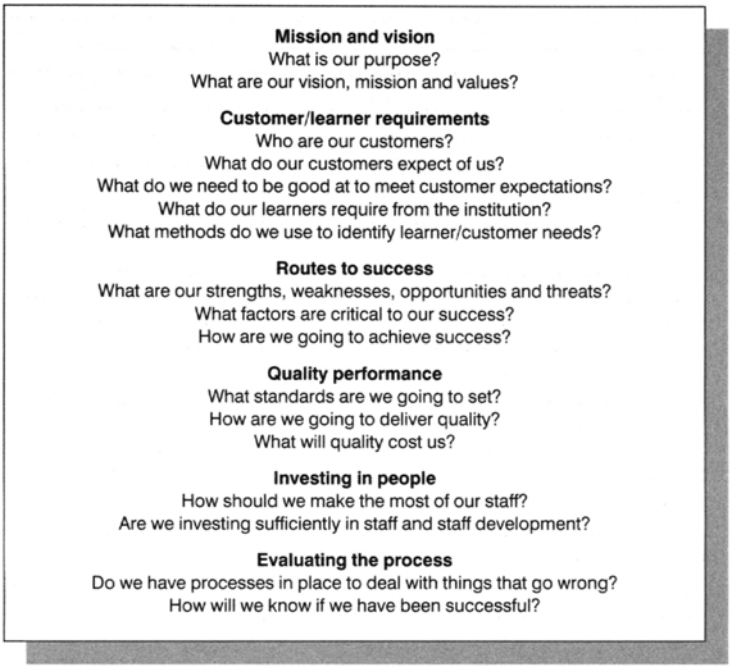

Figure 14.1 *The strategic planning process*

The mission

The mission statement is closely linked to the vision, and provides a clear direction for the present and the future. The mission statement makes it clear why an institution is different from all the others. Mission statements are nowadays becoming well established in education. What is not so prevalent is the strategic follow-through from mission to practical strategy. It is important to ensure that the mission is translated into necessary actions that are required to take advantage of the opportunities available to the institution.

Educational institutions are often reluctant to state publicly that they are seeking to become the best within their own particular sphere of operation. There is a fear that if the mission statement says this then the chances of failure are increased. However, if the mission statement is backed up by a well-formulated long-term quality strategy then this goal should be expressed in the mission statement. The following points should be borne in mind when drafting mission statements:

- Mission statements should be memorable.
- Mission statements should be easy to communicate.
- The nature of the business should be made clear in the mission statement.
- The mission statement should demonstrate a commitment to quality improvement.
- The mission statement should be a statement of the long-term aims of the organization.
- The mission statement should be focused towards the customers:

Hightown School aims to provide its pupils with the highest possible quality of education.

Mid-County College of Arts and Technology aspires to be the leading provider of flexible quality academic and vocational programmes for school-leavers and adults in the county.

Values

The values of an organization are the principles through which it operates and seeks to achieve the vision and its mission. They express the beliefs and aspirations of the institution. They should be short and crisp. Statements of values should be easy to remember and must be readily communicated throughout the institution. Values drive organizations and provide them with direction. They provide consistency of purpose. The values must be aligned to the environment in which the institution operates. They must strike a chord with both customers and staff.

An institution must decide on its own values, but they could include many of the following:

- We put our learners first.
- We operate at the highest standards of professional integrity.
- We work as a team.
- We are committed to continuous improvement.
- We work to ensure equal opportunities for all.
- We will deliver the highest possible quality of service.

Goals

Once vision, mission and values have been established they need to be translated into achievable goals. Goals are often expressed as aims

and objectives. It is important that they are expressed in a measurable way so that the eventual outcomes can be evaluated against them. Goals must be realistic and achievable.

Market research

Good market research is essential for implementing TQM. It is a prime means of listening to customers, both actual and potential. This may sound self-evident, but if a TQM approach is being contemplated then the customer-perceived notion of quality has to be established. The phrase 'perceived quality' is meaningless without market research. Research can be used to determine the issues as seen from the point of view of the customer. It can provide data on the image that the institution has with various different customer or potential customer groups. Institutions need to know what different groups think of them, and why some people use them and others do not. Different customer groups have distinctive needs and require diverse approaches and distinct forms of treatment. This form of sophisticated market discrimination is only possible if the institution has the evidence to hand.

Market research is not something that can be carried out once and for all time, especially in education. Education institutions have the interesting phenomenon of a population that moves through and out of the institution and is then replaced with a new cohort. There are repeat business possibilities, but education is different from most commercial activities as its core customers make a long-term commitment to it but rarely return for another sustained period of enrolment. In such a market, reputation is of vital importance. Reputations take time to develop and need to be guarded. They also change, and market research can provide advance warnings of changes in customer perception of an institution.

The market analysis needs to take into account the segmentation of markets. Rarely does any organization operate in a single market. The different markets need to be identified. Once this has been achieved, questions need to be asked about the distinctive requirements of each segment and whether the service needs to be customized to meet particular needs. This is particularly important in large further and higher education institutions where adult learners have different perceptions, needs and requirements from those of school-leavers. However, market segmentation analysis can be equally valid in schools. It is highly likely that different strategies will have to be adopted for

each market segment if the perceived needs of the whole range of customers are to be met.

SWOT analysis

SWOT analysis has become a commonplace tool of strategic planning in education, but it remains a most effective means of locating an institution's potential. The SWOT can be divided into two elements—an internal analysis concentrating on the performance of the institution itself, and an environmental analysis. The strengths and weaknesses exercise is essentially an internal audit of how effectively the institution performs. The threats and opportunities aspect concentrates on the external or environmental context in which the institution operates. The SWOT analysis aims to produce a small number of key areas under the headings: Strengths, Weaknesses, Opportunities and Threats. The aim of the exercise is to maximize strengths, minimize weaknesses, reduce threats and build on the opportunities.

The SWOT activity can be strengthened by ensuring that the analysis focuses on both the customer requirements and the competitive context in which the institution operates. These are the two key variables in developing a long-term corporate strategy. The strategy of the institution needs to be developed in such ways that the institution can defend itself against the competition and can maximize its attractiveness to its customers. If this exercise is blended with the examination of the mission and values then a distinctive niche or identity can be sought which can differentiate the institution from its rivals. Once a distinctive identity can be developed it is considerably easier to identify the quality characteristics for an institution.

Moments of truth

Critical success factors (CSFs), sometimes called moments of truth, are the indicators of what must be achieved if an institution is to satisfy its customers and its mission statement. They are the next stage in the strategy process and provide a guide to the key quality characteristics of the institutions. They are similar, but not identical, to the more familiar performance indicators (PIs). The difference between CSFs and PIs is that the latter are often generated by others and are not always specifically related to the mission statement of the institution or its customer requirements. CSFs are the key activities that the institution identifies for itself. A list of an institution's critical success factors

could include external measures such as customer satisfaction or responsiveness to community needs, as well as internal indicators such as the amount of staff professional updating, or the successful operation of teams. The key to listing CSFs is to concentrate on the words 'critical' and 'success'. CSFs must highlight what has to be achieved if the institution is to move to total quality. Internal critical success factors might include:

- an accessible admissions system;
- learning modes which meet learner needs;
- properly functioning teams;
- improved examination pass rates;
- learner development of social, personal, cultural and ethical values;
- improvements in teaching/learning strategies;
- involvement of the majority of staff in improvement teams;
- improved progression rates, e.g. into employment and further and higher education.

The external critical success factors could include:

- improved access to the institution;
- greater customer satisfaction evidenced through surveys;
- increased market share;
- increased take up of provision by minority and disadvantaged groups;
- greater responsiveness to community needs;
- stronger relationship with industry and commerce.

The strategic plan

The strategic plan, sometimes called a corporate or institutional development plan, details the measures which the institution intends to take to achieve its mission. It sets a medium-term timescale, usually over a three-year period. Its aim is to give the institution guidance and direction. However, the plan is not a rigid instrument and should be modified if significant internal or external events require it. In a competitive market for education the production of a strategic plan assumes considerable importance. Without it the institution lacks direction.

The strategic plan needs to address a number of key issues once the analysis of mission, values, SWOT and critical success factors has been undertaken. Any institution must decide on:

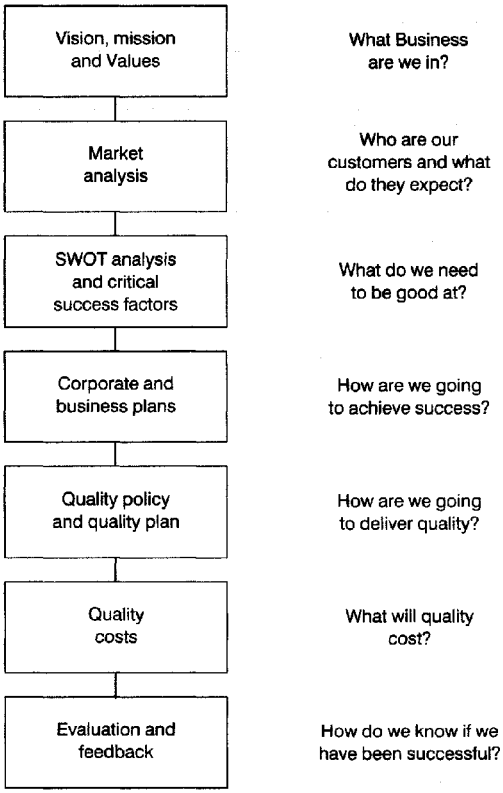

Figure 14.2 *A possible planning sequence*

- *Market identification*—this may be decided for it, but whether this is the case or whether new markets can be opened, the nature of the market provides the essential setting for the strategic plan.
- *The degree of market penetration the institution expects to make*—any institution must have a target for the degree of market share it is seeking to achieve.
- *Its portfolio of services*—this must link closely with market identification and market penetration. Without the appropriate portfolio of courses and programmes it is impossible to meet stated goals.
- *The development of the portfolio*—if the institution is lacking the programmes geared to its targeted markets then it clearly needs a strategy and timescale to develop them. The development will include

not only new programmes but also new and flexible means of delivering existing programmes.

Developing long-term institutional strategies

There are a number of generic strategies which organizations can adopt once they have decided which services and which markets they are operating in. There is a choice of three generic marketing strategies which any institution can follow (see Christopher, Payne and Ballantyne, 1991). The first is *cost-leadership strategy.* This requires an organization to be the lowest-cost institution within its market. It may seek to do this by the extensive use of technology, economies of scale, strict control of costs, etc. The benefits of this strategy are that it can target resources to the areas identified as critical to the customers' perception of quality. However, being the cheapest does not by itself guarantee success. Many consumers will pay more for quality. Quality must not be sacrificed in the drive to reduce unit costs. Within those areas of education where the service *is* provided free, this strategy does not appear relevant at first sight. However, a school that, for example, is able to control its costs or employ economies of scale will have additional sums of money to employ as it wishes. The results of the effective deployment of its resources can provide it with a competitive edge.

The second, *differentiation,* is a strategy that requires an institution to be unique in some way from its competitors. In a commercial market this may allow the company to charge a premium price. Within education the gains are largely in terms of being able to attract additional pupils or students, and the unique features may make it easier to attract alternative sources of funding. An obvious form of differentiation is the opportunity for schools to specialize as outlined in the 1992 White Paper, *Choice and Diversity.* Quality is important for any institution that may wish to exploit this strategy because institutions claiming uniqueness will be subject to close scrutiny.

The third possible market strategy is called *focus strategy.* This involves concentrating on a particular geographical area, a customer group or a market segment. It is a strategy of differentiation through market segmentation. By targeting, the institution will aim to tailor its programmes closer to the needs of the targeted groups than those of its rivals. As with all strategies, the aim is to gain a competitive advantage. The cost of doing this is to give up operating across the whole market

Strengths	Weaknesses
A strong enrolment	Old buildings in poor decorative condition
Enthusiastic management team	High average age of staff
Excellent examination results	Inadequate budget
Strong music, art and drama departments	Lack of car parking
Strong parental support	Inadequate sports facilities
Good staff morale	
Supportive Governors	

Opportunities	Threats
Merger with local institution with an excellent site but mediocre reputation	Loss of reality, strengths and reputation
Develop reputation in sport	Risk of losing experienced teachers who may take early retirement
The excitement of establishing a new institution	That the ethos of the other institution may become dominant
The opportunity to enlarge staff expertise in order to increase the range of offerings	Possible loss of some supportive Governors
The merged institution may attract additional funding	

Figure 14.3 *SWOT analysis*

range. Again, quality is equally necessary for this strategy. Targeting will only work if the quality meets the customers' needs.

Business and operating plans

The business or operating plan is the short-term, usually one-year, detailed plan for achieving particular aspects of the institution's longer-term corporate strategy. It contains definite measures and the financial implications of putting them into operation. As well as the direct financial benefits and costs, it should include the non-financial benefits such as enhanced reputation, increased profile, etc.

- ❑ Is there a clear definition of the service being offered?
- ❑ Is there a clear strategy to produce the service to specification?
- ❑ Have all the external customers been identified?
- ❑ Is there a clear definition of external customers' needs?
- ❑ Are there gaps between the expectations of customers and the current specification of the service?
- ❑ Can any gaps between expectation and specifications be closed?
- ❑ Are the expectations of customers incorporated as fully as possible in the service specification?
- ❑ Have the suppliers been identified?
- ❑ Have the suppliers been as fully informed as possible about requirements?
- ❑ Are there gaps between supply and requirements?
- ❑ How are gaps between supply and requirements being closed?
- ❑ Have all the resource requirements been identified?
- ❑ Are the resources adequate to meet the specification?
- ❑ Are there gaps between the needs of the specification and the available resources?
- ❑ Can gaps in resource requirements be closed?
- ❑ Have the training needs of the staff been identified?
- ❑ Does the process to be used produce the service to the specification?
- ❑ Does the process meet the expectations of the customers?
- ❑ Have we defined what a successful outcome is?
- ❑ Have the critical success factors been identified for the process?
- ❑ Are there adequate monitoring mechanisms in place to measure success?
- ❑ Are there adequate feedback mechanisms in place to allow for self-checking and self-evaluation?

Figure 14.4 *Questions to be asked when drawing up a business plan*

The quality policy and the quality plan

It is important for an institution to have a clear statement of policy on quality. The quality policy is a statement of commitment by the institution.

If an institution is following the ISO9000 route, it is a requirement. However, it is useful for all institutions to draw one up, as it is a practical way for them to define their own quality. A good example of a quality policy is that of Fox Valley Technical College in Wisconsin which states:

QUALITY FIRST POLICY

It is the policy of Fox Valley Technical College to provide quality instruction and service consistent with the highest educational standards.

We endeavour to provide precise, prompt and courteous service and instructions to our students, to one another, and to the employers who hire our graduates and use our services.

The next stage is to develop the quality plan. The quality plan puts the quality policy statement into action. It shows how the process of quality improvement is to be made and maintained. Clearly, it must relate closely to both the corporate and business plans but its focus is different. It outlines the processes to be taken in the medium term to deliver quality improvements. As a result, the quality plan must have clear aims and objectives in relation to quality and the methods through which management commitment is translated into action. Additionally, it must detail the mechanisms through which staff can participate in quality improvement teams. The quality plan should detail the improvement projects that the college intends to carry out. This is the document in which the grand design and the large-scale aspirations are turned into practical and manageable projects.

The costs and benefits of quality

Quality costing is about measuring the benefits of quality improvement. TQM should be approached from the standpoint that it will bring measurable benefits to the institution. Good ideas have to be measured, costed and evaluated. The effort to undertake TQM is considerable in human and financial terms and the benefits flowing from it have to be shown to provide a payback. Any improvement project should be approached with the expectation that it will bestow benefits that exceed the costs of it.

Another way of appreciating the gains from TQM is to measure the cost of things going wrong—known as the costs of failure or non-conformance. Frustrated customers, inefficient or ineffective ways of doing things, and simple mistakes cost the institution. The costs can be generated from a number of sources—angry parents, lost enrolments, extra work, lost income, wasted staff effort. The TQM approach is to try to make things right first time every time and to aim for zero defects. Complaints must be taken seriously and rectified. The feedback loop is important. There must be a system that takes up complaints and looks into serious mistakes and ensures that the loophole that created them does not occur a second time.

Right first time is a difficult concept to implement in a human activity like education. It is not always possible to achieve, but every institution

should always aim to get it right the second time around. Making honest mistakes, however, should not be seen as a matter for blame. Honest mistakes can be the result of innovation and initiative, and excessive caution can be a double-edged sword. The important thing is to minimize mistakes with clear systems and procedures, and good teamwork. Careful and thoughtful planning is an important means of getting things right first time. The test of a TQM organization is how well it responds to mistakes, ensures that they do not recur, and learns the lessons for its future operation. Recurring errors and mistakes demonstrate a lack of system and ineffective or inoperative methods of feedback.

The costs of prevention and failure

There are various ways of measuring quality costs, but an essential distinction can be drawn between the costs of prevention and the costs of failure. The costs of prevention are essentially those costs required to stop things going wrong and to ensure that things are done properly. Under this heading are the costs of quality improvement, the setting up of quality systems, the salaries of coordinators and quality managers, training, and supporting teamwork. These costs are direct costs and can be readily quantified.

The costs of failure, or non-conformance as it is called in the literature on quality, are of ten more difficult ficult to measure and are usually opportunity costs, which are measured via lost opportunities and lost business. Included in these costs are customer dissatisfaction, lost enrolments, learner failure, reworking and redoing things which should have been done correctly first time, time wasting and frustration. The failure costs are all the things that take the pleasure out of managing and working in education. The real cost of quality is eliminating non-quality. The aim of quality costing is zero costs. That is to say, ensuring that things are always done correctly. If things do go wrong it is essential to establish the root cause of the failure so that the same thing can be prevented from happening again.

Monitoring and evaluation

Quality systems always need a feedback loop. Mechanisms must be in place to ensure that outcomes can be analysed against the plan. Monitoring and evaluation are key elements in strategic planning. If the institution is to be a learning rather than a static organization, a process

Prevention costs	**Failure costs**
Internal	*Internal*
TQM development	Dissatisfied learners
Staff training	Poor teaching/learning strategies
Effective teamwork	Poor examination/test results
Effective quality system	Poorly motivated staff
Strategic plan	Poor administrative systems
Audit and evaluation	Inadequate learner support
External	*External*
Effective employer, parent and community liaison	Complaints
	Switchboard problems
Appraisal of customer satisfaction	Poor publicity
	Declining reputation

Figure 14.5 *Quality costs*

of evaluation and feedback must be an essential element in its culture. The evaluation process should focus on the customer, and explore two issues: first, the degree to which the institution is meeting the individual requirements of its customers, both internal and external; and second, how far it is achieving its strategic mission and goals.

To ensure that evaluation is monitoring both individual and institutional goals, it must take place at three levels:

- *Immediate*—involving the daily checking of pupil/student progress. This type of evaluation is largely informal in nature, and is undertaken by individual teachers or at the team level.
- *Short-term*—requiring more structured and specific means of evaluation, which ensures that pupils/students are on track and are achieving their potential. Its purpose is to make certain that things that need to be put right are corrected. The use of statistical data and student profiling should be features of this process. It is undertaken at a team and departmental level. Short-term evaluation can be employed as a method of quality control to highlight mistakes and problems. The emphasis is on corrective action to prevent, so far as is practical, pupil/student failure or under-achievement.

- *Long-term*—an overview of the progress towards achieving strategic goals. This is mainly institutional-led evaluation. It requires large-scale sampling of customer attitudes and views, as well as monitoring by a range of institutional performance indicators. This type of evaluation is undertaken as a prelude to updating the strategic plan. It can involve the use of questionnaires to gain feedback from both primary and secondary customers. The information gained from surveys can be cross-referenced with quantitative performance data on successes, pass rates, student destinations, etc. An important purpose of this type of evaluation is prevention: finding out what has gone wrong, and what pupils/students have not benefited from, and then preventing it from happening again. It is a checking mechanism to ensure that continuous improvement initiatives are meeting their objectives. An interesting model of using student feedback as a means of strategic institutional review can be found in A Roberts' (1992) innovative paper *Establishing Customer Needs and Perceptions,* which compares the priorities established by a college with those of its primary customers and its parents and employers. What Roberts found is that the priorities of his students varied in a number of significant ways from those established through the usual management mechanisms. It also highlighted the things that were of most importance to his parent groups, which were termly reports, parents' evenings and contacts with staff.

The function of evaluation at each stage is diff erent. Too often evaluation is seen as having *prevention* as its main purpose. It is a means of discovering what went right and wrong and using the information to improve things next time round, which in education usually means next year. Preventing things from happening again is a perfectly valid use of evaluation, but it has a major drawback. It does not put right the things that have gone wrong for this year's pupils and students. If problems are identified there must be mechanisms to correct them immediately. Pupils and students should not be allowed to suffer. Putting things right next year will not help them. They need *corrective* action to improve their learning or to stop them under-achieving or failing. A primary purpose of evaluation is to ensure that students are on target, and if they are not, to take the necessary actions to guarantee that they reach their goals. Unfortunately, evaluation is too often used to improve future rather than present provision.

The failure to distinguish the long term from the short term has led to evaluation mechanisms being employed in possibly misleading ways.

Too much emphasis in formal evaluation is on prevention rather than correction. In further education, for example, the main evaluation paradigm bases evaluation around elaborate, periodic, often termly, student questionnaires. The aim is to establish close student feedback and to establish the validity of the curriculum delivery processes, as well as to seek out student perceptions of the college's services. There is nothing intrinsically wrong with questionnaires or with this type of evaluation, providing it is clear what value the output has. This type of evaluation is excellent for identifying strategic and institutional issues. It is far less effective as a method of identifying the factors that have affected the performance of individual students.

Questionnaires are of most value for identifying macro-issues. These could include access to the institution, equal opportunities, perception of the refectory, general teaching styles, etc. Their use is more limited for identifying the micro-issues which affect individual performance—feedback on the last assignment, whether the student is achieving what has been agreed in their action plan, or whether they have difficulties in a particular subject. It is not possible to check on an individual student's learning by periodically analysing the results of questionnaires. An individual's perceptions and problems become lost in aggregate scores for the group. This danger is heightened when questionnaires are drawn up to reflect the institution's priorities and concerns rather than those of the students. Only very occasionally are questionnaires drawn up after a full analysis of what is important to students. This is not to argue that customer surveys are not of value. They are of tremendous value for marketing and strategic planning. However, to gain this type of information they need only to be administered periodically on a sample basis. It is important not to confuse the preventative and long-term improvement purposes of evaluation and neglect the simpler forms of evaluation that can provide possible immediate solutions to particular problems. Checking on individual performance can better be based around action planning and the charting of student progress, and around well-thought-out and planned tutorial programmes than through highly elaborate processes.

15
Framework

> *'Organizations attempt to change culture for different reasons. Changing the culture is a key element of the process of quality improvement and has wide-ranging implications for the whole organization.'*
>
> *Dale and Boaden,* Managing Quality

This chapter describes a framework for analysing existing quality initiatives and for planning and implementing new ones. It has been designed to assist institutions both in managing quality and in using quality management as a means of institutional development. Following Barrie Dale's work, the term *framework* is used rather than the term *model* (Dale and Boaden, 1994). What is presented here is a guide and not a prescription. The starting premise has always been that each and every institution has to find its own route to quality, and that externally prescribed approaches are usually the least effective. That is not to decry the use of the ISO9000 series, the European Quality Award, Investors in People or other quality systems. They are a very useful discipline for any institution to follow, and any quality framework should be capable of being linked to these standards. However, inherently they tend to have more to do with accountability than with improving quality. While the accountability inherent in the quality systems model is important, quality improvement will only take place through the creation of a culture of continuous enhancement and institutional self-assessment.

Quality frameworks

A quality framework needs to meet the special requirements of education and must make sense within the context of the pedagogic

developments currently taking place. To be appropriate in the educational context a quality framework must concern itself with teaching and learning. As Warren has pointed out in a higher education context, 'what students learn…is the most critical element of educational quality, and one that has been virtually ignored on both sides of the Atlantic'. The delivery of learning to students, who are the primary customers of the process, must therefore form the central focus of the framework. Spanbauer has similarly argued, 'No school reform or restructuring is worth its salt unless its major focus is the teaching/learning process' (1992).

Devising a quality framework will require an institution to define its own standards for the principal attributes of quality, and setting up arrangements for achieving them. A number of important steps are involved. These are:

- discovering what you are doing;
- questioning your methods and procedures;
- documenting what you intend to do;
- doing what you say you are doing;
- providing evidence that you are accomplishing what you are claiming to be doing.

Components of a quality framework

Developing leadership and strategy

Leadership and strategy are key elements in any quality framework. Quality management requires a commitment from senior management for quality initiatives to succeed. This is the conclusion of all the major writers on quality. Linked to purposeful leadership, effective educational institutions need well-worked-out strategies to deal with the competitive and results-oriented environment in which they operate. Together with effective teamwork, leadership and strategy provide the engine for the transformational process of quality development. To be effective, educational institutions require processes for developing their quality strategy.

These include:

- a clear and distinctive mission;
- a strategy for achieving that mission;

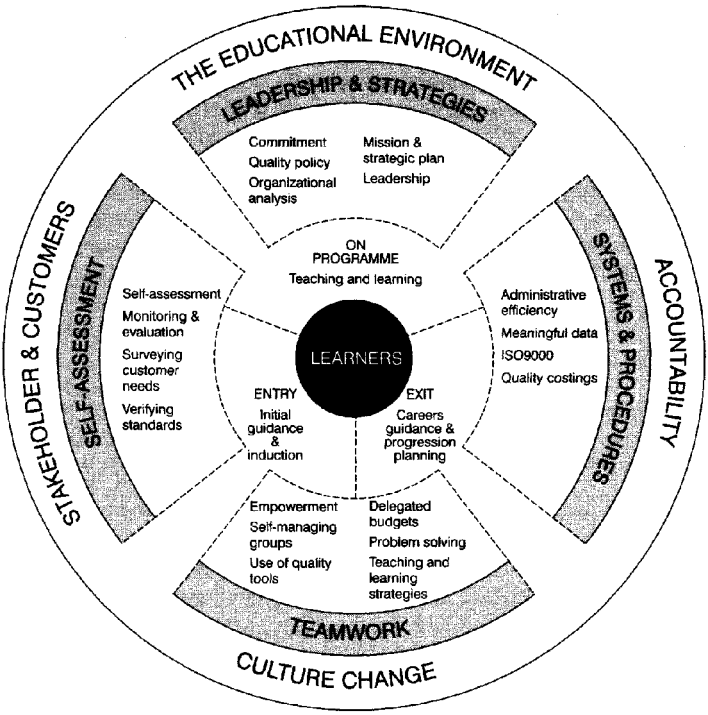

Figure 15.1 *The quality framework*

- the involvement of customers, both internal and external, in the development of strategy;
- the assessment and evaluation of the institution's effectiveness against the goals negotiated with customers.

Leadership and commitment to quality must come from the top. This is the 'iron law' of quality. All models of quality emphasize that, without the drive of senior management, quality initiatives will be short lived.

It is leadership that puts strategy into action and communicates the vision to the staff. Stanley Spanbauer has argued that quality management requires a particular style of leadership, which he characterizes as 'transformational formational management. The function of management is to provide both the vision and the culture of a, mutually supportive, environment in which teachers and managers realize that their individual successes are interlocked with team action—

their achievements rise and fall together' (1992). Deming makes a similar point in his seminal work *Out of the Crisis:* 'The aim of leadership…is to help people do a better job with less effort/

Delighting customers

Delighting the customers is the purpose of TQM. This is achieved by a continual striving to meet both internal and external customers' needs and expectations. Customers' needs are established by regularly soliciting their views. There are various methods of doing this: focus groups; questionnaires; advisory groups; open days; and informally talking to people. It is important that this work is done systematically, and that the views of people who decide not to attend the institution are also solicited. The information from these consultations must be collated and analysed and used when taking decisions. It is important to involve the customers in the process because, at the end of the day, it is their views that count, not those of the institution's management. As Mike Barrett and Marion Thorpe have so aptly expressed it:

> *Students do not come to the college because there is a great budget or good staff/student rations; to them quality is about convenience, promptness, courtesy and reliability. (Sallis and Hingley, 1992)*

Barrie Dale in his study of Japanese approaches to quality shows the total belief that exists in Japanese companies that business operations and efficiency can always be improved by reflecting customer needs and requirements. He demonstrates the considerable lengths to which Japanese firms go to identify needs and to keep the company focused on the market. However, the key idea mentioned by Dale is the translation of customer requirements into the design of products (Dale, 1994). Unless this link between listening and action is established, the activity of sampling customer requirements has little purpose.

Designating quality champions

Regardless of the actual position of this person in the hierarchy, it is important that the designated quality facilitator should report directly to the headteacher or principal. The champions do not undertake all the quality projects. Their role is to assist and guide teams in discovering new ways to tackle and solve problems. It is the responsibility of these

people to publicize the programme, and to lead the quality steering group in developing the quality programme. The quality steering group must represent key interests and must have representation from the senior management team. Its role is to drive and support the quality improvement process. It is both the powerhouse of ideas and the initiator of projects.

Ensuring that the senior management team monitor progress

The senior management team will not be committed to the process unless they are well informed about both the philosophy and the methods of quality management. It is necessary to build up a well-integrated and robust senior management team that can set an example to the teams in the rest of the institution. If TQM requires a 180° turn this can only happen if they are as well trained as anyone else in the institution, and are prepared to change their working patterns to support the development of new ways of working. Specific training in evaluation strategies will probably be necessary. The senior management team must lead the quality cascade.

Initiating staff training for quality

Staff development can be seen as an essential tool for building the awareness and knowledge of quality. It can be the key strategic change agent for developing the quality culture. If TQM is largely about culture then a means has to be found of capturing the hearts and minds of staff. Motivational theorists have long recognized that training is one of the most important motivators in an organization's armoury.

It is important in the initial stages of implementation that everyone is trained in the basics of TQM. Staff need a knowledge of some of the key tools, including teamwork, evaluation methods, problem-solving and decision-making techniques. Both internal and external trainers have their part to play. It can be helpful to visit other organizations, whether educational or business, which are developing total quality initiatives.

In *Thriving on Chaos* (1987) Tom Peters, having analysed the success of a number of major US companies, comes up with the exhortation 'Train everyone—lavishly'. Peters provides a prescription for what constitutes a successful organizational training programme. Training should be used as the flagship for strategic change. He argues

that management in the future will flow through empowering visions and shared values. Training is a prime opportunity to underscore the organization's values. To do this top management must be closely involved in the design of training programmes.

Monitoring the delivery of the curriculum

This is the stage where quality systems are vital. The methods of learning need to be established and followed for each aspect of the programme. The type of information that needs to be part of it includes syllabuses, course submissions, schemes of work, records of work, assessment records, action plans and records of achievement. The recording of failure and below-average performance, and the actions taken to correct them, should be documented. This includes documentation of the aims and objectives of each programme, and the specification of the programme. The latter can take the form orm of a syllabus or submission document to a validating body. What needs to be included, where relevant, is the evidence for the demand of the programme and the resources devoted to it. Evidence of learners' or sponsors' inputs into the design will be a feature of this part of the quality system.

The process of curriculum and programme management needs to be specified, including arrangements for teamwork. The roles within the team and their responsibilities and levels of authority should also be clarified.

Verifying the assessment of student performance

The details of both formative and summative assessments and the criteria for grading and the award of qualifications are necessary elements of the quality framework. A system for the internal verification of the assessment arrangements needs to be in place and documented. External examiners', moderators' and verifiers' reportswill provide important evidence, where available, of the quality of the management of learning.

Communicating the quality message

The strategy, relevance and benefits of TQM need to be effectively communicated. There can be a great deal of misunderstanding about the purpose of quality. The long-term nature of the programme needs to be

made clear, as do the reasons for embarking on it. Staff development, training and team building are some of the most effective effective means of achieving it. Staff need to be regularly informed with either special newsletters or regular reports in the in-house journal. The importance of good communications and their feedback to management cannot be overemphasized. It is important to highlight good practices so that positive attitudes and goodwill can be drawn on. An institution will need to find its champions and leaders and to recognize their successes. Achievement needs to be celebrated, and there needs to be public recognition of good work. This does not have to be monetary recognition, but the motivational effects of public recognition and praise should not be underestimated. All the staff need to be involved in the quality process.

The importance of a clear and positive communications strategy also cannot be overstated. An organization has to know what it is about and what constitutes the quality it is seeking to improve. Dale and Boaden (1994) have made the point that management has to share the strategy and outline to employees what needs to be done to make mission statements and strategy documents a reality. Without clear thinking and thoughtful communication, energy can be misdirected and wasted. Too often institutions concentrate on doing things rather than doing the right things. W Edwards Deming summed up these phenomena in his terse phrase, 'having lost sight of our goals we redoubled our efforts'.

Measuring the costs of quality

It is important to know both the cost of implementing the quality programme and the costs of not undertaking it. The costs of ignoring the quality message could involve lost enrolments, student failures, damage to reputation, lost opportunities etc. The exercise is important as it highlights many of the reasons for pursuing quality improvements and provides a motivation for sticking with the programme.

Teamwork

Teamwork is the element that links teacher professionalism to the quality development process. It is the framework in which innovation and change become an accepted fact of life. Without teamwork, quality development cannot be instituted (Schotles *et al,* 1990). The key aspect of teamwork in this framework is recognition of the internal customer chain. The successful organizational structure of a quality college rests

on the mutual recognition of other people's roles within the institution and the need to deliver services internally to agreed standards. Teaching a modern curriculum requires the close integration of academic staff together with support staff, particularly learning resource professionals.

Teams can be seen as the engine of quality improvement They make quality management work. Teams can clarify issues and ideas, and they are the means by which conflicts over direction and policy can be constructively handled. Working in teams can provide every person in the organization with a means of expressing their views and making a contribution to the quality improvement process. A number of different types of teams are needed to produce quality improvements. As well as the more familiar curriculum teams, it is important to use ad hoc teams to tackle urgent quality issues.

Applying quality tools and techniques

This approach focuses on getting things done and achieving initial successes. It focuses on the things that the institution knows it has to improve, and selecting the correct tools to tackle them. Starting a TQM process by tackling problems head on avoids TQM paralysis. The danger is that it is easy to run out of steam or for the initiative to flounder if problems are difficult to resolve. If this approach is adopted it needs to be closely followed by a thorough analysis and a more strategic approach. Nevertheless, it may be useful to demonstrate those important first achievements.

Projects are best tackled by teams, and they should be encouraged to tackle problems and issues close to home. Tom Peters believes that organizations should encourage pilots for everything (Peters, 1987). Pilots have the advantage of speeding up innovation, providing sources of excitement and interest. When setting up improvement action teams or task groups, it is important to recognize that some issues can only be tackled by cross-organizational improvement teams. These are probably best set up as ad hoc groups given the brief to tackle a particular problem according to a fixed timescale. They have the additional advantage of helping to engender greater organizational collaboration.

Teams can start by analysing workflow and the existing processes and methods and their results. Usually the process of analysis highlights areas that need improvement and provides the initial agenda for the improvement programme. It is important that teams be supported with training in teamwork, problem solving and the use of tools if they are to be successful in their task.

Developing a self-assessment culture

An institution should have a means for evaluating its total performance. External inspectors may undertake this. However, the institution may decide to undertake its own audit. Staff can assess areas other than their own. Outsiders may be included in the audit. A system of peer review can build confidence and trust, and can act as significant staff development. Mechanisms need to be developed to feed the results of this auditing back into the strategic planning processes.

Feedback loops are vital for assessing and assuring quality. The quality system will need to document the evaluation mechanisms that the institution has in place to monitor both the achievement of individuals and the success of its programmes. The participation of the learner in the assessment of their own progress and their experience of the programme is an important element in this assessment. The methods might include records of achievement, review meetings, questionnaires and internal audits. Whatever the method employed, it must be appropriate to the process.

Regular review and evaluation need to be an integral part of the programme. The steering group should undertake regular reviews and the senior management team should consider their reports and carry out its own monitoring. No new initiatives should be undertaken until the successes and failures of the existing ones are fully understood.

Applying the framework

TQM fits well into the general philosophy, although less frequently the practice, of education. The ideas of client-centredness, which are at the heart of the total quality approach, are in tune with much educational philosophy. All institutions claim to be pupil or student centred. The difference between this aspiration and a total quality institution is that of a comprehensive framework to assure that promises to customers are met. The gaps between intention and assuring quality arise, in part, because educational institutions have, in general, been excellent in responding to external change, but often have lacked the time and the mental resource to plan their own long-term strategy and develop their own standards. A total quality approach, whether the initials TQM are adopted or not, will be necessary for the future corporate health and survival of institutions. A clear identity, well-defined standards and customers' entitlements are necessary features of self-confident

institutions. Institutions will need to find the time to plan for their own and their customers' future.

They will need to produce a coherent and integrated approach to quality management that harnesses the commitment and goodwill of staff. Motivation, expertise and enthusiasm assure quality, not appraisal and inspection. The quality improvement programme must involve all that work in the institution. Everybody is responsible for the quality of the service they deliver, whether they are institutional managers, teachers or staff in support roles. Harnessing commitment from staff and channelling it into improvements is a major aspect of TQM. Quality systems must be vehicles for assisting staff to solve their own problems, not as means of controlling them. It is all too easy to turn a quality system into a means of control rather than empowerment. It is important to remember that people produce quality, and to ensure that there are practical means of recognizing their achievements. Educationalists need to keep in mind that the quality message is in essence extremely simple. Quality is about doing the ordinary things extraordinarily well.

No institution can purchase TQM off the peg. It has to be customized so that it harmonizes with and develops from the existing culture. TQM should be developed from existing good practice within the institution. Quality already exists in educational institutions. What TQM does is to build on existing quality and develop it into continuous quality improvement. Industrial models can be drawn on to provide useful pointers and examples. However, it is important to ensure that any approach used is realistic, workable and affordable. It needs to be remembered that introducing total quality requires perseverance. TQM is not something that can be introduced overnight. Nor is it a miracle cure. It does not provide instant success, and it does not solve all the problems. It will throw up new difficulties and challenges. It is a slow process, but the benefits are long term. No institution has to adopt the message of total quality. However, let us not forget that in the current climate no organization, however long established, has a right to survival.

16
Self-assessment

> *'As Deming reminds us, perfection is never a prequisite for improvement interventions, but a willingness to work systematically to reduce errors is.'*
>
> *Martin Barlosky and Steve Lawton,* Developing Quality Schools

Institutional self-assessment is of growing importance in education. It is a major element of quality improvement and marks a step away from inspection towards the institution taking responsibility for its own quality that is a key mark of organizational maturity. It is an essential element of the culture of continuous improvement. It is the process by which educational institutions make considered judgements on their own performance and use these as the data for future enhancement of their service. An institution that takes self-assessment seriously is likely to be one that prospers. Self-assessment is a key to better meeting the needs of learners.

What is self-assessment?

The use of self-assessment or quality audit is an excellent first diagnostic step on the path to total quality. Having a self-assessment checklist is a standard against which the institution can measure itself. It provides a framework for building up an understanding of quality. It allows the organization to discern its strengths and weaknesses and from such an analysis to decide how best to make improvements. As such, self-assessment is a catalyst for making educational improvement and driving up standards. From this an organization can build an action plan for its future development.

Such checklists can also usefully be employed at intervals to measure progress and to evaluate success and failure. There is a range of self-assessment frameworks available. The European Foundation for Quality Management's (EFQM) model for TQM self-appraisal is one of the most sophisticated. The EFQM believes that the process of self-assessment is a catalyst for driving improvement.

The EFQM definition of self-assessment is as follows:

> *Self-assessment is a comprehensive, systematic and regular review of an organization's activities and results referenced against the EFQM Excellence Model The Self-assessment process allows the organization to discern clearly its strengths and areas in which improvements can be made and culminates in planned improvement which are then monitored for progress.* (EFQM, www.efm.org)

Using a self-assessment checklist

The problem with many self-auditing checklists is that they can appear to be daunting. By listing all the possible criteria for excellence they create an image of perfection that can appear impossible to achieve. The checklist in this chapter has been devised as a simple tool. It covers the essentials and concentrates on the areas of greatest importance. It is flexible in its scope and purpose.

Institutions can modify it or use it as the basis for devising their own. It is an instrument for aiding policy and decision making. It can provide a useful guide to what is right and what needs to be improved. It can be a starting point for the development of critical success factors and an improvement action plan.

It is important that educators use the self-assessment process in an effective and rigorous fashion. This involves:

- a striving for objectivity when making judgements; educators must be realistic about the performance of their institutions;
- ensuring that sufficient attention is paid to the quality of teaching and learning;
- ensuring that action plans are constructed in such a way that they lead to demonstrable improvements that build on strengths and reduce weaknesses.

One way of using a checklist is for the senior management team of an institution to score perceptions of how the institution measures up. There is nothing wrong with this, but it should also be used with the staff and, at least, with a representative sample of differing customer groups. The difference of the perceptions of the different groups can be extremely revealing. It can also lead to a change in the order of an institution's strategic priorities.

Another way of using such an instrument is to set up an audit team. This team would have the job of collecting the evidence to support the conclusions drawn from each item. Part of the evidence collecting procedure would be through contact with staff and students using focus groups. The audit team should ideally be a mixed group involving senior management, teaching and support staff, students, and possibly an external customer such as an employer's representative. The team could then report back to the appropriate decision-making committees within the institution. The importance of such an audit approach is that the actual process of collecting the evidence is both a developmental and evaluative exercise. It is important to recognize that this type of quality auditing is not judgmental but is developmental in character. It is not about finding faults, but is about highlighting good practice, and showing areas where development and change will bring benefits. It is a guide to improvement and planning.

Constructing the action plan

The purpose of self-assessing quality is to make improvements. This is achieved by accurately and objectively assessing the quality of provision against each indicator and then making a judgement about the *action* needed to improve the process. This process of making improvements is known as *action planning.* The action plan is a written document that has timescales, performance indicators and named individuals against each action that is proposed to be taken. The action plan needs to be a living, breathing document that is owned by the whole institution.

The self-assessment quality indicators

This checklist updates the one in the first edition of this book and incorporates some of the ideas and amendments to the checklist made by Martin Barlosky and Professor Steve Lawton in their very useful *Developing Quality Schools.* Unlike other audit devices such as the

European Quality Management Foundation or ISO9000 that are generic in nature, this self-assessment has been devised specifically for education and incorporates key areas, such as teaching and learning and services to students that are lacking in the generic checklists. Institutions can, of course, customize the checklist to suit the needs of their own institutions.

In this self-assessment checklist there are 10 quality indicators. These have been weighted to show their relative importance in the quality process. The highest weighted areas are effective teaching and learning and leadership. Leadership is of crucial importance because numerous studies have shown that strong leadership is a key feature of high-performing educational institutions. Excellent leaders inspire their staff and ensure that there is a drive for quality improvement. In those establishments where student success is high, those working in them and particularly their management have a clear understanding of standards and the actions necessary to achieve them. This combination of leadership and teaching and learning makes up 35 per cent of the total score.

The indicators for the self-assessment of institutional quality are:

- access (5%);
- services to customers (5%);
- leadership (15%);
- physical environment and resources (5%);
- effective learning and teaching (20%);
- students (15%);
- staff (15%);
- external relations (5%);
- organization (5%);
- standards (10%).

The grading scale

In this checklist score 5 for poor performance and 1 for excellence. It is important in this exercise to make the self-assessment objective by providing *evidence* as to why each particular grade is awarded. As well as awarding a grade for each indicator it is important to award an overall grade for each indicator and an overall institutional grade for the quality of the entire institution. The criteria for each score is:

Self-Assessing Educational Institutions—an instrument for self-auditing

Quality Indicators	Grade 1	2	3	4	5
1. Access (5%)					
Advice and guidance					
▪ there is a clear initial contact point for all customers					
▪ there is a welcoming reception					
▪ telephone response times are short					
▪ advice and guidance facilities are readily available					
▪ there are clear signs around the campus					
Open access					
▪ there are appropriate ramps and lifts for people with disabilities					
▪ signs and literature are produced in community languages					
2. Services to customers (5%)					
Advice and guidance					
▪ an effective information and guidance service is available					
▪ effective pre-entry guidance is available for all students					
▪ appropriate continuing guidance is available to all students					
▪ careers guidance is readily available					
▪ accessible student welfare and counselling is available to all students who need it					
Learning resources					
▪ a well-resourced library and resource centre is available with appropriate resources to meet curriculum needs					
▪ open access to learning resources is available to all students					
▪ open-access computer facilities are available to all students					

- Grade 1 is awarded for excellence performance. There is a majority of strengths and few weaknesses.
- Grade 2 is awarded for good performance. Strengths outweigh weaknesses.
- Grade 3 is awarded for average performance. There is a balance of strengths and weaknesses.
- Grade 4 is awarded for below average performance. Weaknesses outweigh strengths.

- Grade 5 is awarded for poor performance. There is a majority of weaknesses and few strengths.

Quality Indicators	Grade 1	2	3	4	5
Social and refreshment					
▮ affordable canteen facilities are available when students require them					
▮ adequate sports facilities are available					
▮ appropriate relaxation facilities are available					
▮ there are opportunities for students to organize their own activities					
3. Leadership (15%)					
Head/principal					
▮ she/he has a vision and shares it					
▮ she/he champions the message of TQM					
▮ she/he walks the job					
▮ she/he knows the staff					
▮ she/he knows the students					
▮ she/he provides leadership					
▮ she/he ensures that quality champions are in place					
▮ she/he leads innovation and creativity					
▮ she/he gives top priority to quality improvement					
Governance					
▮ the Board/Trustees works with the Head/Principal to develop the institution's mission					
▮ ensures that the institution has a framework for quality improvement in place					
▮ the Board/Trustees effectively monitors the quality of provision, including the major indicators of success:					
– student achievement					
– student retention					
– student recruitment					
– financial solvency					
– the self-assessment report and action plan					
Values					
▮ the institution's mission and ethos is clear and understood by:					

Quality Indicators	Grade 1	2	3	4	5
– staff – students – the community ■ an equal opportunities policy is in place and implemented ■ there is a strong commitment to the needs of the community					
4. Physical environment and resources (5%)					
Buildings, classrooms and workshops					
■ the buildings are clean and attractive ■ the facilities are fit for purpose ■ classrooms contain appropriate visual aids and learning aids					
Stimulating learning environment					
■ classroom layouts/individual learning programmes are exciting to students ■ the learning environments are well planned and organized					
Health and safety					
■ student perception/incident logs are kept ■ health and safety policies are regularly monitored ■ there is a strong commitment to maintaining a safe and secure environment					
Resource control and allocation					
■ there is appropriate delegation of resource management ■ effective resource control is exercised ■ resources are controlled by those who use them					
Quality costs					
■ the institution has a clear idea of the costs of quality failures ■ quality costs are regularly monitored and reported					

Quality Indicators	Grade 1	2	3	4	5
5. Effective learning and teaching (20%)					
Appropriateness of learning methods					
▮ there are teaching and learning strategies appropriate to course and programme goals					
▮ a variety of learning modes are available to meet learners' needs					
▮ teaching and learning strategies are regularly reviewed and measured by a range of specified criteria					
▮ teaching and learning strategies are measured by student response					
▮ learning is student centred					
▮ students are encouraged to take responsibility for their own learning					
▮ there is a recognition of prior learning					
▮ there is a good climate of purposefulness among students					
Appropriateness of the curriculum					
▮ the curriculum is appropriate to learners' needs					
▮ the content of programmes is relevant and up to date					
▮ there is a short response time for the development of new course and programme content					
Monitoring and evaluation					
▮ student feedback is regularly obtained					
▮ feedback from other customer groups is regularly obtained					
▮ student and community questionnaires are used where appropriate					
▮ the institution has formal systems for review and evaluation					
▮ there is evidence that student feedback is used in policy making					

Quality Indicators	Grade 1	2	3	4	5
6. Students (15%)					
Students matter					
▮ the communal areas are clean and well-decorated					
▮ student handbooks and guides are available					
▮ there is an absence of artificial barriers					
▮ there are good transport arrangements for students					
▮ there are a good range of leisure, recreation and sporting facilities available to students					
Student satisfaction					
▮ there is a good rapport between staff and students					
▮ happy students and satisfied customers are evidenced through surveys and questionnaires					
▮ students have a sense of pride in their work					
▮ students are kept informed about developments that affect them					
▮ students' views are regularly solicited					
Monitoring students' progress					
▮ students' progress is regularly tracked and monitored					
▮ students' attendance is regularly monitored and tracked					
▮ tutorial provision is used effectively to ensure that students are on track					
7. Staff (15%)					
Attitude and motivation					
▮ staff are committed and knowledgeable					
▮ staff have a student-centred approach					
▮ staff take responsibility for their own quality					
▮ staff have a sense of pride in their work					
▮ staff have a sense of enjoyment in their work					
▮ staff readily respond to individual needs					

Quality Indicators	Grade 1	2	3	4	5
Teamwork					
▮ there is a commitment to teamwork and team approaches					
▮ staff are trained in the skills of teamwork					
▮ staff have strong cohesion					
▮ teams have a clear idea of the limits to their authority					
▮ there is a resource base that allows them to improve quality					
▮ teams are regularly consulted on policy					
Staff development and training					
▮ the institution is committed to developing its staff					
▮ the institution is proactive and clearly states institutional needs					
▮ staff development starts with a review of individual needs					
▮ staff training is adequately resourced and funded					
▮ staff training is an institutional priority					
▮ training includes all staff					
▮ staff are trained in quality improvement techniques					
Facilities					
▮ there are good staff workrooms					
▮ there are adequate and appropriate equipment and facilities					
▮ there are opportunities for professional discussion and debate					
8. External relations (5%)					
Marketing					
▮ there is a coherent marketing strategy					
▮ market research is regularly carried out					
▮ the institution is positively seeking out customer views					
▮ student and employer questionnaires are regularly used					

Quality Indicators	Grade 1	2	3	4	5
Community					
▪ excellent links with relevant communities are maintained					
▪ community views are regularly solicited					
▪ there are strong links with business and industry through partnerships					
▪ there are strong links with community agencies through partnerships					
9. Organization (5%)					
Strategic planning					
▪ the institution has broad aims and objectives					
▪ staff at all levels are aware of the institution's direction					
▪ the institution has a written strategic plan					
▪ the plan identifies how staff can contribute to success					
Organizational culture					
▪ the institution has a simple and lean organizational structure					
▪ the institution's managers are committed to quality improvement					
▪ authority is delegated down					
▪ a positive attitude to change is part of the culture					
▪ there is a universal statement of direction					
▪ there is strong commitment to peer evaluation and review					
▪ the organization is prefaced upon teamwork					
▪ learning maximization and prudent risk-taking are emphasized					
▪ there is a tolerance of mistakes					
Communications					
▪ good communications are seen as a major priority					
▪ communications are bottom-up not just top-down					
▪ mutuality in communication is seen as the lifeblood of the institution					

Quality Indicators	Grade 1	2	3	4	5
Knowledge management					
▮ there is a policy in place for effectively using the institution's knowledge resources					
▮ an active approach is taken to managing knowledge through techniques such as learning stories					
▮ teams across the institution learn from each other's successes					
Quality tools and techniques					
▮ a range of quality tools and techniques is used to improve quality					
▮ project teams are formed to tackle quality issues					
10. Standards (10%)					
Hard standards					
▮ the institution has excellent exam results and student successes					
▮ the institution has high student retention rates					
▮ the institution has high progression rates for students obtaining appropriate employment or places in other educational institutions					
▮ effective use of resources, measures of value-added capabilities are in place					
▮ good student and community feedback based on systematic data collection is obtained					
▮ there is effective budgetary control					
Soft standards					
▮ there is a caring atmosphere					
▮ student welfare is a priority					
▮ customer service is in evidence					
▮ there is a welcoming environment					
▮ there is a commitment to learners of all abilities					

Quality Indicators	Grade				
	1	2	3	4	5
Benchmarking					
▮ appropriate benchmarking data is obtained					
▮ appropriate use is made of benchmarking information					
Value added					
▮ the institution knows what value it has added to each student who leaves it					
▮ measures of value added are used to set students targets					
▮ value-added data is used as part of the benchmarking exercise					
▮ there are strategies in place to improve the value added					
Self- assessment and target setting					
▮ a rigorous programme of institutional self-assessment is in place					
▮ appropriate targets are set based on best practice benchmarking data					
▮ the institution does not measure itself on 'hard' priorities alone					
▮ data is cycled back into improvement initiatives					

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